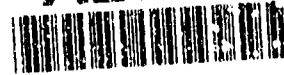


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Technical Report 966

# Family Patterns and Adaptation in the U.S. Army

Gary L. Bowen, Dennis K. Orthner,  
Laura I. Zimmerman, and Thomas Meehan  
University of North Carolina at Chapel Hill

October 1992

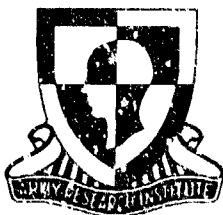
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Few significant differences emerged from the analyses of personal and family stress and adaptation of soldiers across family patterns. Significant differences, however, were apparent in the demographic characteristics associated with these family patterns; these differences may account for most of the variations by family pattern. For example, younger, junior enlisted soldiers tended to experience more stress and have more difficulty adapting, irrespective of their type of family arrangement. Likewise, male soldiers tended to have weaker social support networks than female soldiers across all family patterns. One relatively consistent difference across family patterns, however, was the somewhat higher levels of stress and lower levels of coping among single parent males. This group of soldiers had the most consistent problems with work and family stress and adaptation. Female single parent soldiers, in contrast, had fewer problems and their experiences were more likely to mirror those of married soldiers.

The findings from this research will facilitate the work of military service providers, trainers, leaders, and manpower personnel. Specific recommendations are offered to expand support program efforts to Army married and single parent families, offer more informal support to families through unit and community support organizations, increase the training given to service providers and unit leaders on family-related issues, and conduct further, more intensive research on the special needs of each type of family pattern.

**Technical Report 966**

## **Family Patterns and Adaptation in the U.S. Army**

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## FOREWORD

The Army Family Research Program (AFRP) is a 5-year integrated research program that began in November of 1986 in response to research mandates in the **CSA White Paper, 1983: The Army Family** and the subsequent annual **Army Family Action Plans**. The objective of the research was to (1) determine the demographic characteristics of Army families, (2) identify ways to improve family adaptation to Army life, (3) increase the Army sense of community and partnership, (4) increase family support for retention, and (5) demonstrate which family factors impact on individual and unit readiness.

This report focused on four family patterns in the Army: civilian wife marriages, civilian husband marriages, dual military marriages, and single parenthood. The analyses showed that differences in soldier characteristics associated with these different family patterns were more important in understanding how soldiers and families adapted than the patterns themselves. For example, younger, junior enlisted soldiers tended to experience more stress and have more difficulty adapting, irrespective of their type of family arrangement. Likewise, male soldiers tended to have weaker social support networks than female soldiers across all family patterns.

The results of this research were briefed to scientists at the U.S. Army Research Institute for the Behavioral and Social Sciences and interested Army representatives on 28 June 1991. These findings will be helpful to Army family program managers as they move to streamline the service delivery system in the continuing effort to downsize the force.

This research was conducted under a Letter of Agreement between ARI and the U.S. Army Community and Family Support Center (CFSC) entitled "Sponsorship of ARI Army Family Research" dated 18 December 1986, which made CFSC the sponsor of the research. The work was done by the Leadership and Organizational Change Technical Area of the Manpower and Personnel Research Division of ARI with the assistance of the Research Triangle Institute, Caliber Associates, HumRRO, and Decision Science Consortium, Inc.



EDGAR M. JOHNSON  
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Grateful appreciation is expressed to the staff of the Human Services Research and Design Laboratory in the School of Social Work at the University of North Carolina at Chapel Hill. In particular, Rosemary Hallberg and Betty Averette logged many hours reviewing and editing this report.

Janet Griffith of the Research Triangle Institute and Gerald Croan of Caliber Associates provided valuable comments on the development of the research plan. D. Bruce Bell, Jacquelyn Scarville, and Nora K. Stewart of the U.S. Army Research Institute for the Behavioral and Social Sciences offered substantive comments on the development of the research plan that improved the analysis and the preparation of the report. Although the contributions and feedback from these individuals are recognized, responsibility for the contents of the report lies solely with the authors.

In addition, the authors express their appreciation to the Army soldiers who gave their time and support to this research. Without their honest and thoughtful responses to our questions, this report and its recommendations would not have been possible.

# FAMILY PATTERNS AND ADAPTATION IN THE U.S. ARMY

## EXECUTIVE SUMMARY

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### Requirement:

The research supports the Army Family Action Plans by providing data and analysis on soldiers who are living in one of four family patterns: civilian wife marriages, civilian husband marriages, dual military marriages, and single parenthood. This is the first major investigation comparing the stresses, strengths, and adaptation of soldiers in each of these types of family relationships. It supports the need for data on how to assist soldiers in making successful adjustments to military demands.

### Procedure:

The data were collected from a random sample of 11,035 soldiers in 1989. The analysis was conducted on 7,524 married and single parent soldiers in the sample. Civilian spouse marriages were examined, whether the spouse was co-located with the soldier or not. Dual military marriages included those in which both partners were on active duty, and single parents included nonmarried soldiers who had custody of children living in their households. Final analyses compared soldiers across gender and pay grades on the following variables: work stress, family stress, psychological strengths, marriage and family strengths, social and community resources, leadership support, coping and adjustment, and Army-family fit.

### Findings:

Few significant differences emerged from the analysis of personal and family stress and adaptation among soldiers across family patterns. Significant differences, however, were apparent in the demographic characteristics that were associated with these family patterns; these differences may account for most of the variations by family pattern. For example, younger, junior enlisted soldiers tended to experience more stress and have more difficulty adapting, irrespective of their type of family arrangement. Likewise, male soldiers tended to have weaker social support networks than female soldiers across all family patterns. One relatively consistent difference across family patterns, however, was the somewhat higher levels of stress and lower levels of coping among single parent males. This group of soldiers had the most consistent problems with work and family stress and adaptation. Female single parent soldiers, in contrast, had fewer problems and their experiences were more likely to mirror those of married soldiers.



#### Utilization of Findings:

The findings from this research will facilitate the work of military service providers, trainers, leaders, and manpower personnel. Specific recommendations are offered to expand support programs to Army married and single parent families, offer more informal support to families through unit and community support organizations, increase training given to service providers and unit leaders on family-related issues, and conduct further, more intensive, research on the special needs of each family pattern type.

# FAMILY PATTERNS AND ADAPTATION IN THE U.S. ARMY

## CONTENTS

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	Page
INTRODUCTION .....	1
Objectives .....	1
Definitions .....	2
Source of Data .....	2
Sample Profile .....	2
Data Analysis and Limitations .....	3
FINDINGS .....	5
A Comparative Profile by Family Pattern .....	5
Stressors, Adaptive Resources, and Family Adaptation .....	19
CONCLUSIONS AND DISCUSSION .....	45
Major Findings .....	45
Recommendations for Service Providers .....	47
Recommendations for Education and Training .....	48
Recommendations for Commanders and Supervisors .....	49
Recommendations for Manpower Personnel .....	50
REFERENCES .....	51
APPENDIX A. METHODS .....	A-1
B. A NOTE ON INTERPRETING SAMPLE STATISTICS .....	B-1

## LIST OF TABLES

Table	1. Sample Size Profile .....	3
	2. Profile of Soldiers by Family Pattern: General Demographics .....	6

## CONTENTS (Continued)

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	Page
Table 3. Profile of Soldiers by Family Pattern: Military Profile .....	8
4. Profile of Soldiers by Family Pattern: Marital/ Family Profile at Entry .....	9
5. Profile of Soldiers by Family Pattern: Marital Life Profile .....	10
6. Profile of Soldiers by Family Pattern: Civilian Spouse Profile .....	12
7. Single Life Profile of Single Parents .....	16
8. Profile of Soldiers by Family Pattern: Children .....	17
9. Work Stressors for Soldiers by Family Pattern .....	20
10. Family Stressors for Soldiers by Family Pattern .....	22
11. Psychological Resources for Soldiers by Family Pattern .....	25
12. Relationship Resources for Married and Single Parent Soldiers by Family Pattern .....	27
13. Family Resources for Soldiers by Family Pattern .....	30
14. Social and Community Resources for Soldiers by Family Pattern .....	33
15. Army Support for Soldiers by Family Pattern .....	37
16. Coping and Adjustment for Soldiers by Family Pattern .....	40
17. Army-Family Fit and Spouse Support for Married Soldiers by Family Pattern .....	43

	Page
<b>LIST OF FIGURES</b>	
Figure 1.	Foreign-born spouses by rank/pay grade: Soldiers married to civilian wives . . . . . 13
2.	Interracial/ethnic group marriage by rank/pay grade: Soldiers married to civilian wives . . . . . 14
3.	High work stress by family pattern with gender . . . . . 21
4.	Financial hardship by family pattern with rank/ pay grade . . . . . 25
5.	Low risk of marital separation by family pattern with gender . . . . . 29
6.	High strength and coherence by family pattern with gender . . . . . 31
7.	High preference for Army community by family pattern with gender . . . . . 35
8.	High leader support for families by family pattern by rank/pay grade . . . . . 38
9.	Family adjusting well to Army demands by family pattern with gender . . . . . 41
10.	Family adjusting well to Army demands by family pattern with rank/pay grade . . . . . 42
11.	High Army-family fit by family pattern with rank/pay grade . . . . . 44

# FAMILY PATTERNS AND ADAPTATION IN THE U.S. ARMY

## INTRODUCTION

The U.S. Army today is a mosaic of family pattern types. The advent of the all-volunteer force in the 1970s; the increase in the number of active-duty women; societal trends in divorce, single parenthood, remarriage and childlessness; and less traditional gender role norms and behavior among both men and women have all contributed to this mosaic. Despite greater diversity in family patterns in the U.S. Army today, little information is available that yields a comparative profile of these family types. Based on survey data that were collected from soldiers as part of the Army Family Research Program (AFRP), this report provides a comparative demographic profile and family adaptation analysis of soldiers across several prominent family pattern types. Four family pattern types are defined that together comprise about three-quarters of the Army community: civilian wife marriages, civilian husband marriages, dual military marriages, and single parent households.

### Objectives

Two major objectives frame this report. The first is to present a demographic profile of soldiers across the respective family pattern types. The second is to determine variations in the level of stressors, adaptive resources, and family adaptation outcomes of soldiers across the respective family pattern types. Its intent is to build upon earlier reports by Bowen (1989a, 1990), Orthner and Bowen (1990), and Orthner, Zimmerman, Bowen, Gaddy, and Bell (1991) that have focused on defining, modeling, and studying the adaptation of soldiers to life in the U.S. Army. The analyses in this report represent more descriptive theoretical models of family adaptation in the Army in anticipation of further detailed modeling and statistical analysis using data from the AFRP survey.

Each of the family pattern types for soldiers that are identified above have received separate attention in the literature (Bowen & Neenan, 1989; Bowen & Orthner, 1986; Janofsky, 1989; McCubbin & Patterson, 1983b; Neenan, 1989). Yet, with the exception of the Families-in-Blue studies in the U.S. Air Force (Orthner, 1980; Orthner & Bowen, 1982) and recent analysis by Bowen (1989a) of the Army subsample of the 1985 DoD Worldwide Survey of Officer and Enlisted Personnel, there have been limited subgroup comparisons of soldiers across family types. Such a comparative analysis by family type provides an important "yardstick" for interpreting data on any single group. It has rich potential for assisting Army service providers, education and training specialists, commanders and supervisors, and manpower personnel in better understanding the profile and support needs of soldiers in different family configurations.

## Definitions

Based on the work of Bowen (1989b, 1990), Orthner and Bowen (1990), Orthner, Zimmerman, Bowen, Gaddy, and Bell (1991), McCubbin and Patterson (1983a, 1983b), and McCubbin and McCubbin (1987), the following definitions of stressors, adaptive resources, and family adaptation were employed for purposes of the present research. Stressors were defined as demands or situations that have the potential to influence the functioning and interpersonal relationships of the individual. These stressors may exist on the individual level, on the interpersonal level, or in the relationship between individuals and the external systems in which they operate, such as the work environment. Adaptive resources were defined as those capabilities, assets, and informal and formal supports from which the individual may rely and draw upon for meeting personal and relationship needs and demands from one's environment. A multidimensional concept, adaptive resources were conceptualized on five levels: (a) psychological, (b) relational, (c) family, (d) community, and (e) Army. Family adaptation to the Army was defined as the individuals' level of success in coping with their work and family demands and the sense of mutual support, commitment, and shared purpose that they and their families feel with the Army institution.

## Source of Data

Collected as part of the Army Research Institute's Army Family Research Program, the AFRP data are based on a stratified probability sample of soldiers worldwide who completed a written questionnaire during the period from late February through early December 1989. Of the 11,035 soldiers that completed a usable questionnaire, 7,524 were used in the present analysis. Each was a member of one of four family pattern types: civilian wife marriages ( $n = 6051$ ), civilian husband marriages ( $n = 317$ ), dual military marriages ( $n = 918$ ), or single parent households ( $n = 238$ ). Single soldiers without dependent children in the household and warrant officers were omitted from the analysis. Additional details on the sample design, instrument development and data collection are discussed in Appendix A.

## Sample Profile

Table 1 contains the unweighted sample size profile for all groups in the analysis. It is further broken down by rank/pay grade for all groups, and by gender for dual military and single parent soldiers. Because of the larger samples of soldiers married to civilian wives, a more refined rank/pay grade is provided in breakdowns involving these subgroups.

Table 1

Sample Size Profile

Family Type	No. of Soldiers
Civilian Wife (Total)	(6051)
Junior Enlisted (PVT to CPL)	2075
Mid Enlisted (SGT to SSG)	1318
Senior Enlisted (SFC to SGM)	433
Company Grade Officer (2LT to CPT)	1065
Field Grade Officer (MAJ to COL)	1160
Civilian Husband (Total)	(317)
Junior Enlisted (PVT to CPL)	113
Mid/Senior Enlisted (SGT to SGM)	110
Officer (2LT to COL)	94
Dual Military (Total)	(918)
Male	418
Female	500
Junior Enlisted (PVT to CPL)	373
Mid/Senior Enlisted (SGT to SGM)	268
Officer (2LT to COL)	277
Single Parent (Total)	(238)
Male	94
Female	144
Junior Enlisted (PVT to CPL)	105
Mid/Senior Enlisted (SGT to SGM)	102
Officer (2LT to COL)	31

### Data Analysis and Limitations

Crosstabulations were used to compare the respective family pattern subgroups across a number of demographic variables and family adaptation indicators. For purposes of analysis, the responses of soldiers were weighted to better represent the Army as a whole. The SUDAAN Procedure for Descriptive Statistics (Shah, LaVange, Barnwell, Killinger, & Wheelless, 1989), a statistical software package which allows for the weighting and analysis of data from a multi-stage cluster sampling design, was used in the analysis to compute proportions and crosstabulations and their associated variance estimates.

The relationships between family pattern type and both demographic and family adaptation indicators were further examined within gender and rank/pay grade subgroups. To promote parsimony in the data analysis and to ensure that the analysis was relevant to Army policy and program objectives, the demographic profile analysis of soldiers within family pattern type and rank/pay grade combinations was restricted to three clusters of variables for married soldiers (marital life profile, spouse profile, and children) and two clusters of variables for single parents (single life profile and children). Because of sample size restrictions among soldiers in civilian husband marriages, dual military marriages, and single parent households, only a three category rank/pay grade variable was used in examining relationships between family pattern types and family adaptation indicators within rank/pay grade: Junior Enlisted, Mid/Senior Enlisted, and Officer. However, due to sample size restrictions ( $n=31$ ), no comparisons involving single parent officers are drawn. Because of the more descriptive nature of the demographic analysis compared to the analysis of stressors, adaptive resources, and adaptation outcomes, a more refined rank/pay grade breakdown is used for soldiers with civilian wives in examining the relationships between family pattern type and demographic parameters than between family pattern types and family adaptation indicators: Junior Enlisted, Mid Enlisted, Senior Enlisted, Company Grade Officer, and Field Grade Officer.

The association between criterion variables and the independent variable, family pattern type, was tested for statistical significance using the chi-square statistic. Yet, because of the large size of the sample and given that the chi-square statistic increases in direct proportion to increases in sample size, actual percentage differences between groups were examined for meaningful significance using standard error estimates of the difference between proportions involving two independent groups of given sample sizes (see Appendix B). As a rule of thumb, differences between groups of less than 10 percentage points are interpreted cautiously.



## FINDINGS

### A Comparative Profile by Family Pattern

#### Family Demographics

Single parent and dual military soldiers were nearly evenly split into male and female subgroups. The data in Table 2 show that males comprised slightly more than one-half of sample dual military soldiers (54%), while females encompassed a greater proportion of sample single parent soldiers (57%).

The vast majority of soldiers across the family pattern subgroups was 35 years old and under, ranging from a low of 76 percent for soldiers in civilian wife marriages to a high of 88 percent for soldiers in dual military marriages. However, compared to soldiers married to civilian wives (36%) or husbands (35%), a larger proportion of soldiers in dual military marriages (48%) and soldiers in single parent households (45%) was in the youngest age category: 18 to 26 years of age. A particularly large proportion of female soldiers in dual military marriages was in this 18 to 26 year old age category (57%); only 40 percent of male soldiers in dual military marriages were in this youngest age bracket.

Despite the increase in the number of Hispanic soldiers in the Army in recent years, the weighted profile of respondents to the survey suggests that they remain a relatively small percentage of the force irrespective of family pattern subgroup. Fewer than 10 percent of soldiers within each family pattern subgroup reported their racial/ethnic group as Hispanic.

The racial/ethnic group composition of soldiers within the White and Black NonHispanic subgroups varied across family pattern subgroups. A larger proportion of soldiers married to civilian wives (63%) than soldiers in the other family pattern subgroups reported their racial/ethnic group as White NonHispanic. More than one-half of single parent soldiers were members of a racial/ethnic minority group, most often Black NonHispanic (46%). However, when male and female single parents were compared, a greater proportion of males were White NonHispanic (66% and 31%, respectively). Just the opposite racial/ethnic group pattern was found for male and female soldiers in dual military marriages: a greater proportion of female soldiers in dual military marriages was White NonHispanic (55%) than their male counterparts (46%).

Table 2  
Profile of Soldiers by Family Pattern: General Demographics

Variable	Family Pattern			
	Civilian	Civilian	Dual	Single
	Wife	Husband	Military	Parent
	(n = 6051)	(n = 317)	(n = 918)	(n = 238)
	%	%	%	%
Gender				
Male	100	0	54	43
Female	0	100	46	57
Age: Soldier				
18-26	36	35	48	45
27-35	40	50	40	38
36-44	21	12	12	16
45 & Older	3	3	1	1
Racial/Ethnic Group: Soldier				
White NonHispanic	63	53	50	47
Black NonHispanic	25	37	42	46
Hispanic	9	7	7	6
Other	3	4	2	1
Education				
Less than High School	0	0	1	0
GED	12	2	3	10
High School	43	34	49	42
Some Post-Secondary	26	37	30	35
Bachelor's Degree	7	15	9	6
Beyond Bachelors	11	13	9	7

The combination of higher educational requirements for entry and opportunities for continued education after entry has virtually eliminated soldiers with less than a high school education. The majority of soldiers within each family pattern subgroup had at least a high school diploma, ranging from 88% for soldiers married to civilian wives to 98% for soldiers married to civilian husbands. However, a comparatively large proportion of single parent males (19%) reported their highest level of education as a GED; only four percent of single parent females reported a GED as their highest level of education. In addition, there was variation in the proportion of soldiers across family pattern subgroups with at least a four-year college degree. The proportion of soldiers married to civilian husbands (28%) who had a bachelor's degree or beyond

was larger than that of soldiers in other family pattern subgroups (ranging from 13% to 18%).

### Military Profile

The rank/pay grade of soldiers in the sample also varied across the family pattern subgroups (see Table 3). Most notable were the differences in family patterns among junior enlisted personnel. The proportion of junior enlisted soldiers with civilian wives (29%) was smaller than that of soldiers with civilian husbands (41%), in dual military marriages (41%), or in single parent households (46%). In addition, more than one-half of female soldiers in dual military marriages (53%) and in single parent households (58%) were in the junior enlisted ranks; the comparable proportion of junior enlisted male soldiers in these family pattern subgroups was 32 percent and 29 percent, respectively. While there was a comparatively small proportion of soldiers with civilian husbands, this family pattern included a higher proportion of officers (21%) than other family pattern subgroups. Only four percent of female soldiers in single parent households were officers.

Although there was no significant variation in the geographic location of soldiers (CONUS, EUROPE, Other OCONUS) by family pattern subgroup, there was variation by family pattern subgroup in the major command to which soldiers were assigned. In particular, while a comparatively low proportion of female soldiers with a civilian husband was assigned to FORSCOM (35%), a comparatively high proportion was assigned to the Health Services Command (24%). In addition, compared to their male counterparts (8%), a greater proportion of female soldiers in dual military marriages (17%) was assigned to the Health Services Command.

In addition to these proportional differences by family pattern subgroup, there was significant variation in the type of unit to which soldiers were assigned by family pattern subgroup. Approximately two out of five male soldiers married to civilian wives (41%) were assigned to a combat unit; soldiers in other family pattern subgroups most often were assigned to either a combat support service or a TDA unit. Not surprisingly given current restrictions in the combat roles that female soldiers may perform, the proportion of male soldiers in dual military marriages (25%) and in single parent households (39%) in combat units was more than twice that of their female counterparts (10% and 18%, respectively). A similar proportion of soldiers across the family pattern subgroups had fathers (ranging from 55% to 60%) and mothers (3%) who had prior military service.

Table 3  
Profile of Soldiers by Family Pattern: Military Profile

Variable	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
Pay Grade/Rank				
Junior Enlisted	29	41	41	46
Mid Enlisted	41	36	36	37
Senior Enlisted	15	3	9	12
Company Grade Officer	7	13	9	4
Field Grade Officer	7	8	4	3
Location				
CONUS	65	66	67	70
EUROPE	29	26	28	26
Other OCONUS	6	8	5	4
Major Command				
FORSCOM	47	35	43	46
TRADOC	11	9	11	13
USAREUR	26	21	23	21
Health Services Command	5	24	12	9
Other	11	11	12	11
Unit Type				
Combat	41	10	18	27
Combat Support	16	11	16	11
Combat Support Service	16	32	32	27
TDA	28	47	34	36
Prior Service: Father	60	59	55	55
Prior Service: Mother	3	3	3	3

#### Marital/Family Profile at Entry

The majority of soldiers within the four family pattern subgroups was single, never married when they entered the Army (see Table 4). Yet, a comparatively greater proportion of female soldiers who were married to civilian husbands than soldiers in other family pattern subgroups either was married or had previously been married upon entry (41%). In addition, approximately twice the proportion of single parent soldiers (9%) than that of soldiers in other family pattern subgroups was

legally separated or divorced at the time of entry. However, when marital status at entry was examined by the gender of the single parent, this single parent distinction was more characteristic of females (15%) than males (2%). Similar to single parent soldiers, a larger proportion of female soldiers in dual military marriages (8%) than that of their male counterparts (2%) was legally separated or divorced upon entry.

It is likely that some single parent households in the Army result from termination of a marriage that was formed before entry into the Army. Nearly one out of five single parent soldiers (21%), one-quarter of single parent males, and 17 percent of single parent females were married when they entered the Army; nearly one out of three (29%) had children upon entry. However, a larger proportion of female single parents (36%) than male single parents (20%) had children when they came into the Army.

Table 4  
Profile of Soldiers by Family Pattern: Marital/Family Profile at Entry

Variable	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
Marital Status Upon Entry				
Single, Never Married	68	59	76	70
Remarried, Was Divorced/ Widowed	2	6	1	4
Married for the First Time	28	30	18	17
Legally Separated/ Filing for Divorce	1	1	2	5
Divorced	1	3	3	4
Widowed	0	0	0	0
Children Upon Entry	18	22	12	29

#### Marital Life Profile

Patterns in divorce and remarriage are clearly evident in Army married households, as displayed in Table 5. One-quarter of soldiers in dual military marriages and approximately one-fifth of soldiers married to either civilian wives (18%) or civilian husbands (22%) were remarried. In general, in comparing the proportion of soldiers in their first marriage across both family pattern and the rank/pay grade of the soldier, a greater proportion of mid and senior enlisted soldiers was remarried than soldiers in other rank/pay grade categories.

In many cases, these couples had been married less than five years, including civilian wife marriages (44%), civilian husband marriages (55%), and dual military marriages (69%). One-quarter of soldiers married to civilian husbands and approximately one-third of soldiers in dual military marriages (34%) had been married one year or less. Only 16 percent of soldiers married to civilian wives had been married one year or less. As might be expected, based on their younger age, the number of junior enlisted soldiers within each of the family pattern subgroups who had been married one year or less was proportionally greater than the number of soldiers in higher rank/pay grade categories. For example, nearly six out of ten junior enlisted soldiers in dual military marriages (59%) had been married one year or less.

Table 5  
Profile of Soldiers by Family Pattern: Marital Life Profile

Variable	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
Marital Status				
Married for the first time	82	78	75	**
Remarried, was divorced or widowed	18	22	25	**
Length of Marriage: Years				
1 or Less	16	25	34	**
2 to 4	28	30	35	**
5-9	27	27	21	**
10-14	15	13	8	**
15 or More	14	5	3	**
Former Single Parent <sup>a</sup>	3	19	14	**
Current Colocation	91	82	86	**
Joint Domicile Assignment	**	**	70	**

<sup>a</sup>Survey item: While serving on active duty, have you ever been a single parent with your child living with you?

Compared to male soldiers married to civilian wives (3%), a relatively greater proportion of female soldiers married to civilian husbands (19%) and soldiers in dual military marriages (14%) described themselves as former single parents. However, the proportion of female soldiers in dual military marriages (21%) who had previously been single parents was three times greater than that of their male counterparts (7%). In addition, former single parents were particularly common among female soldiers in the mid/senior enlisted grades who were married to civilian husbands (34%). Only 12

percent of junior enlisted soldiers and seven percent of officers married to civilian husbands had been former single parents. Irrespective of the rank/pay grade of the soldier spouse, six or less percent of male soldiers married to civilian wives had been former single parents. Similar to trends in the civilian sector, these data illustrate the fluidity of marital and household patterns in the Army that result from high rates of divorce and remarriage in contemporary society.

Although co-location of residence for husband and wife was high overall within the married family pattern subgroups, it was most common for male soldiers married to civilian wives (91%); it was least common for female soldiers married to civilian husbands (82%). More than four out of five soldiers in dual military marriages (86%) were living with their spouses at the same location. Co-location of residence was particularly high for officers across the family pattern subgroups.

Seventy percent of dual military soldiers described themselves and their spouses as currently on a joint domicile assignment. Yet, the proportion of those soldiers that had a joint domicile assignment with their spouses did vary across pay grades. Only 59 percent of junior enlisted soldiers in dual military marriages had a joint domicile assignment compared to 75 percent of those in the mid/senior enlisted grades and 87 percent of those in the officer grades.

#### Civilian Spouse Profile

When soldiers were asked to describe the characteristics of their civilian spouses, nearly one out of five soldiers with civilian wives (18%) reported that their spouses had been born outside the United States to non-U.S. citizen parents (see Table 6). However, compared to their officer counterparts, a much larger proportion of enlisted soldiers who were married to civilian wives, especially those in the senior enlisted grades, had foreign-born spouses (see Figure 1). Only seven percent of soldiers with civilian husbands described their spouses as foreign born.

Table 6  
Profile of Soldiers by Family Pattern: Civilian Spouse Profile

Variable	Family Pattern	
	Civilian Wife	Civilian Husband
	%	%
Foreign Born: Spouse	18	7
Racial/Ethnic Group: Spouse		
Asian or Pacific Islander	7	2
American Indian or Aleut/Eskimo	1	1
Black NonHispanic	21	39
White NonHispanic	62	54
Hispanic	9	4
Interracial/Ethnic Group Marriage	14	12
Spouse Employment		
Yes, full time	36	59
Yes, part time	16	12
No, but looking	17	15
No, not looking but want job	13	9
No, do not want to work	18	6

Compared to soldiers with civilian wives (38%), a greater proportion of soldiers with civilian husbands (46%) reported the racial/ethnic group of their spouses as other than White NonHispanic. Not surprisingly, given the racial/ethnic status of soldiers themselves, a larger proportion of enlisted soldiers than officers who were married to civilian wives reported a spouse from a minority group. More than three-quarters of officers in the company and field grades who were married to civilian wives (71% and 86%, respectively) described their spouse as White NonHispanic. Fourteen percent of male soldiers in the senior enlisted ranks who had civilian wives were married to an Asian or Pacific Islander.



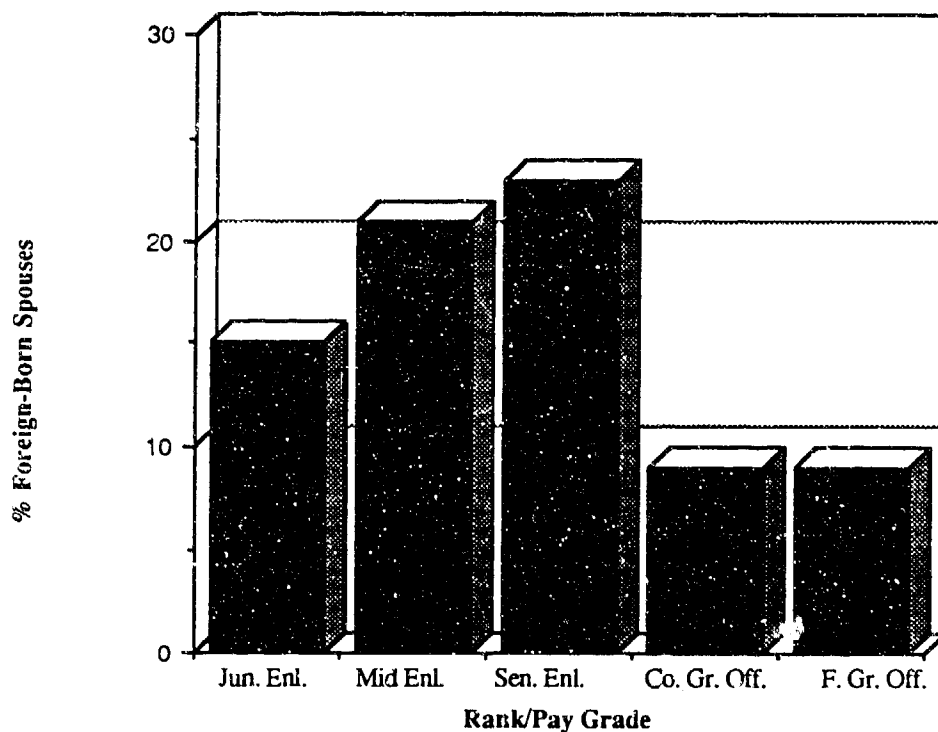


Figure 1. Foreign-born spouses by rank/pay grade: Soldiers married to civilian wives.

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Given the racial/ethnic group diversity in the Army community, coupled with the large proportion of single soldiers in foreign countries, interracial/ethnic marriages were not uncommon among soldiers married to either civilian wives (14%) or husbands (12%). Among soldiers who were married to civilian wives, interracial/ethnic marriage was approximately twice as common in the enlisted grades, especially among senior enlisted personnel (20%) (see Figure 2).

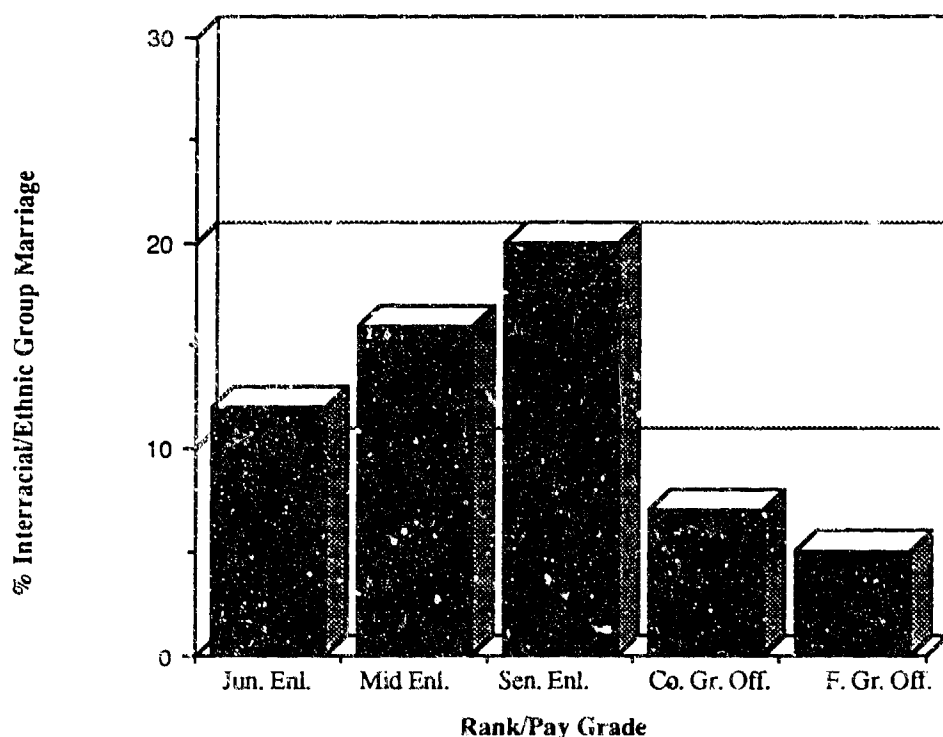


Figure 2. Interracial/ethnic group marriage by rank/pay grade: Soldiers married to civilian wives.

Among soldiers married to civilian spouses, spouse employment was the modal pattern, especially for soldiers with civilian husbands. Fifty-two percent of male soldiers with civilian wives reported that their spouses were employed either full- or part-time; seventy-one percent of female soldiers with civilian husbands described their spouses as employed either full- or part-time. In the context of this high employment rate for both civilian wives and husbands, it is noteworthy that only about one-third of civilian wives were employed full-time; on the other hand, more than one-half of civilian husbands were employed full-time. Fewer than one-fifth of civilian wives (18%) and only six percent of civilian husbands were described by their soldier spouses as not desiring employment.

The spouse employment of civilian wives, as described by their soldier husbands, was found to vary by the rank/pay grade of the soldier. Although a lower proportion of wives of junior enlisted soldiers was employed (45%) than that of wives of higher ranking soldiers (50% to 63%), nearly one-quarter were actively looking for a job. Similarly, nearly twice the proportion of civilian wives married to company and field grade officers (28% and 29%, respectively) than that of those married to either junior enlisted, mid enlisted or senior enlisted men (16%, 16%, and 15%, respectively).

were described by their soldier husbands as not employed and not desiring employment.

#### Single Life Profile: Single Parents

Although there is a stereotype in the military community of the pregnant, never-married single parent, two-thirds of the single parent soldiers that responded to the survey had previously been married (see Table 7). Of those single parent soldiers who were officers, 95% had been formerly married. In addition, 52% of junior enlisted single parents and 78% of mid/senior enlisted single parents had previously been married. Only a small fraction of single parents were single because of the death of spouse (1%).

More than one-half of the single parent soldiers (58%) reported involvement in a boyfriend or girlfriend relationship. In more than one-quarter of the cases (28%), single parent soldiers were in "committed" relationships, meaning that they often or very often discussed marriage with their boyfriends or girlfriends. Another 30% of single parent soldiers were in "involved" relationships. Although these soldiers reported having a boyfriend or girlfriend, they reported that they never or infrequently discussed marriage.

Of those single parents who were involved in intimate relationships, most (57%) had a current boyfriend or girlfriend who also served on active duty in the U.S. Armed Forces. In most cases (76%), the boyfriend or girlfriend lived within a two-hour drive from the single parent's current location.

Table 7  
Single Life Profile of Single Parents

Variable	Family Pattern	
	Single Parent	
	%	
Single Status		
Never married		33
Legally separated/ Filing for divorce		29
Divorced		37
Widowed		1
Relationship Status: Single Parent		
Independent (no girl/boyfriend)		42
Involved (little or no discussion of marriage)		30
Committed (frequent discussion of marriage)		28
Girl/Boyfriend served on Active Duty		
Yes, on Active Duty		57
Yes, was on Active Duty		13
No		30
Girl/Boyfriend lives within two-hour drive		
Yes		76
No		24

### Children

As can be seen in Table 8, the proportion of childless couples was found to vary across the married family pattern subgroups. Although nearly three-fourths of male soldiers married to civilian wives (72%) reported children in the household, only about one-half of both female soldiers married to civilian husbands (51%) and soldiers in dual military marriages (48%) had children in the household. In each of the three married family pattern subgroups, the smallest proportion of soldiers with children was reported by those in the junior enlisted grades: civilian wife marriages (56%), civilian husband marriages (44%), and dual military marriages (36%).

Table 8  
Profile of Soldiers by Family Pattern: Children

Variable	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
Presence of Children				
Married, No Children; 34 or younger	23	39	47	**
Married, No Children; 35 or older	5	10	5	**
Married with children	72	51	48	**
Number of Children: Parents				
1	36	41	59	59
2	42	47	33	33
3	15	9	6	6
4	5	3	1	1
5	1	0	1	0
6 or More	0	0	0	1
Age of Youngest Child				
Less than One Year	12	10	21	16
1 to 2	29	28	32	23
3 to 5	24	28	23	21
6 to 9	17	21	14	20
10 to 14	12	10	9	15
15 to 17	4	1	2	3
18 or Older	2	3	1	1
Expecting Child	8	10	10	4

In comparisons among soldiers with children in the household, a greater proportion of male soldiers married to civilian wives (64%) had more than one child in the household than either female soldiers with civilian husbands (59%), soldiers in dual military marriages (41%), or single parents (41%). Relatively few soldiers had more than two children. In addition, among male soldiers with civilian wives and children in the home, the proportion of soldiers in the junior enlisted grades who had only one child (54%) was greater than that of soldiers in higher rank grades (ranging from 24% to 41%).

In the majority of households with children, the age of the youngest child was five years old and younger. Between 10 to 21 percent of soldiers within each of the family pattern subgroups with children had a child less than one year of age. The presence of infants (less than one year) and toddlers (1 to 2 years old) was

particularly common in the homes of junior enlisted soldiers and company grade officers married to civilian wives. Seventy-one percent of junior enlisted soldiers and 58 percent of junior officers in this family pattern subgroup who had children had at least one infant or toddler in the home. In addition, 72 percent of junior enlisted soldiers in dual military marriages with children and 64 percent of single parents in the junior enlisted grades had infants or toddlers in the household.

In about 10 percent of married households, the wife was expecting a child. Compared to higher rank groups, a larger proportion of junior enlisted soldiers who were married to either civilian wives (14%) or civilian husbands (13%) were expecting a child. Six percent of single parent females were expecting a child, all of whom were in the junior enlisted grades. The relatively high prevalence of pregnancy among single parent females follows national trends in the civilian sector in which an increasing number of single women are having children outside of marriage, but not necessarily outside of a committed intimate relationship.

## Stressors, Adaptive Resources, and Family Adaptation

### Stressors

Individuals face many demands and situations in the course of daily living that have the potential to affect their physical, psychological, and social well-being and performance. These stressors may exist on an individual level, on an interpersonal level, or in the relationship between the individual and the external systems in which they participate, such as the work environment. Although different classification schemes exist in the literature for organizing types of stressors, two broad categories of stressors are considered below: work and family. Based on a spillover perspective, it is likely that work and family stressors have a reciprocal and cumulative impact on one another, resulting in a level of "pile-up" of stressors that may have detrimental consequences for the individual and/or family system. However, although the literature has tended to focus more on the negative aspects of stressors, it is also possible for individuals to face too few demands and challenges. Such "underload" may be as detrimental as "overload" to individual adjustment and functioning, especially in situations where the individual desires more responsibility and demands.

### Work Stressors

Soldiering is a demanding profession. Long and often unpredictable work hours, extra duty assignments, frequent exercises and mobilizations, and family separations can tax the resources of any individual or family system. In this analysis, four areas of work demands were examined: high work demands, low work predictability, high work stress, and high work-family interference (see Table 9).

Work demands were assessed by a single item that asked soldiers to rate on a seven point scale from "Not at all Demanding" to "Extremely Demanding" the level of demands that they faced in their work. The three other measures were assessed by scales that included more than one survey item. Work predictability included six items that assessed the extent to which work demands were unpredictable and intruded into hours that soldiers often had available to spend with their families (e.g., "You have to cancel leave or important personal/family plans because of your work requirements"). Work stress was measured by three items that indicated the extent to which soldiers came home at the end of their duty too tired or too emotionally drained to enjoy themselves and to engage with others. Last, Army-family interference was determined by four items that assessed the extent that Army responsibilities in the last month had interfered with the soldier's ability to meet family responsibilities (e.g., "Being unable to attend events with family members").

Table 9

## Work Stressors for Soldiers by Family Pattern

Variables	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
High Work Demands <sup>a</sup>	56	55	54	48
Junior Enlisted	48	47	48	39
Mid/Senior Enlisted	57	50	57	56
Officer	65	82	65	54
Male	56	**	55	54
Female	**	55	52	43
Low Work Predictability <sup>b</sup>	53	34	41	44
Junior Enlisted	54	32	39	36
Mid/Senior Enlisted	52	28	40	53
Officer	54	50	52	38
Male	53	**	48	58
Female	**	34	33	35
High Work Stress <sup>c</sup>	48	52	50	54
Junior Enlisted	55	61	58	64
Mid/Senior Enlisted	46	44	43	46
Officer	41	51	44	5
Male	48	**	44	61
Female	**	52	56	50
High Army Family Interference <sup>d</sup>	47	46	52	50
Junior Enlisted	56	48	51	54
Mid/Senior Enlisted	42	40	49	47
Officer	43	54	63	38
Male	47	**	49	60
Female	**	46	55	43

<sup>a</sup>Percent responding either a one or two on a a reverse-coded seven-point scale ranging from "Extremely Demanding" to "Not at all Demanding."

<sup>b</sup>1st and 2nd quartiles: Coded from low to high predictability.

<sup>c</sup>1st and 2nd quartiles: Coded from high to low stress.

<sup>d</sup>1st and 2nd quartiles: Coded from high to low interference.

When the data from male and female soldiers were compared, several key similarities and differences emerged. First of all, the proportion of male soldiers reporting low work predictability was greater than that of female soldiers for all family pattern groups. In addition, a higher proportion of single parent males than single



parent females reported high work demands, high work stress, and high Army-family work interference. On the other hand, a higher proportion of females than males in dual-military marriages expressed high work stress (see Figure 3). On other dimensions, the differences between male and female soldiers were not significant.

The work stress indicators were also compared by the rank/pay grade of the soldier for each family pattern. On this comparison the proportion of officers in married households who reported high work demands was consistently higher than that of enlisted personnel, especially those in civilian husband marriages. The proportion of junior enlisted single parents who reported high work demands was lower than that of all other family/grade groups. In contrast, a greater proportion of junior enlisted soldiers reported high work stress in all family pattern types, including single parent households.

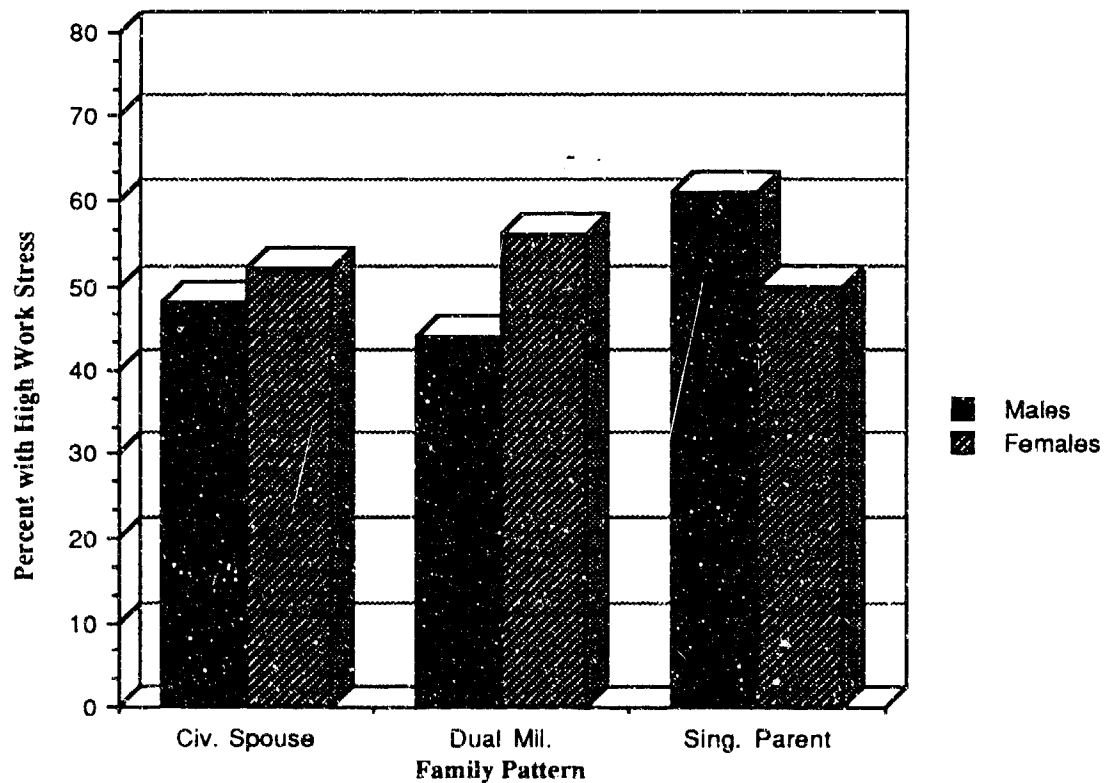


Figure 3. High work stress by family pattern with gender.

## Family Stressors

Like work, family life places a number of demands on married and single parent soldiers. Viable family relationships do not just happen. Spouses and children require time, attention, and energy--commodities that are often in short supply in the life of a soldier. So, while families are a source of love, support, and strength, they are also a source of demand and responsibility.

In this analysis, two areas of family demands were examined: high family demands and the occurrence of financial hardship (see Table 10). High family demands were assessed by a single item that asked soldiers to rate, on a seven point scale from "Not at all Demanding" to "Extremely Demanding," the level of demands that they faced from their family responsibilities. Financial hardship was assessed by a single item. Soldiers were asked to specify how many months in the last 12 months that they had not had enough money to pay their bills. Table 10 reports the proportion of soldiers who responded that they had experienced at least one month of financial hardship over the past twelve months.

Table 10

### Family Stressors for Soldiers by Family Pattern

Variables	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
High Family Demands <sup>a</sup>	57	52	52	74
Junior Enlisted	65	57	55	77
Mid/Senior Enlisted	57	54	53	70
Officer	41	36	37	83
Male	57	**	51	70
Female	**	52	52	76
Financial Hardship <sup>b</sup>	35	38	27	53
Junior Enlisted	51	45	38	62
Mid/Senior Enlisted	33	39	23	49
Officer	9	18	5	11
Male	35	**	27	52
Female	**	38	27	53

<sup>a</sup>Percent responding either a one or two on a reverse coded seven-point scale ranging from "Extremely Demanding" to "Not at all Demanding."

<sup>b</sup>Percent responding that they have experienced at least one month over the past twelve months where they have lacked money to pay their bills.

As the data in Table 10 indicate, a greater proportion of single parents than soldiers in other family pattern types reported high family demands (74%) and financial hardship (53%). With the exception of the relatively small proportion of soldiers in dual military marriages who reported financial hardship (27%), only modest proportional differences are found for married soldiers on the two indicators of family demands across family pattern types. There are no significant differences across family patterns between male and female soldiers in family demands or hardship.

Further analysis by the pay grade of the soldier revealed several interesting trends in the data. While pay grade comparisons generally supported the finding of a greater proportion of single parents reporting high family demands, further comparisons across pay grades revealed that a smaller proportion of officers experienced high family demands than their enlisted counterparts, irrespective of married family pattern type: civilian wife marriages (41%), civilian husband marriages (36%), and dual military marriages (37%). Furthermore, irrespective of family pattern type, a higher proportion of junior enlisted soldiers reported financial hardship and a lower proportion of officers reported financial hardship (see Figure 4). Not surprisingly, given their dual employment status, soldiers in dual military marriages were less likely to report financial hardship.

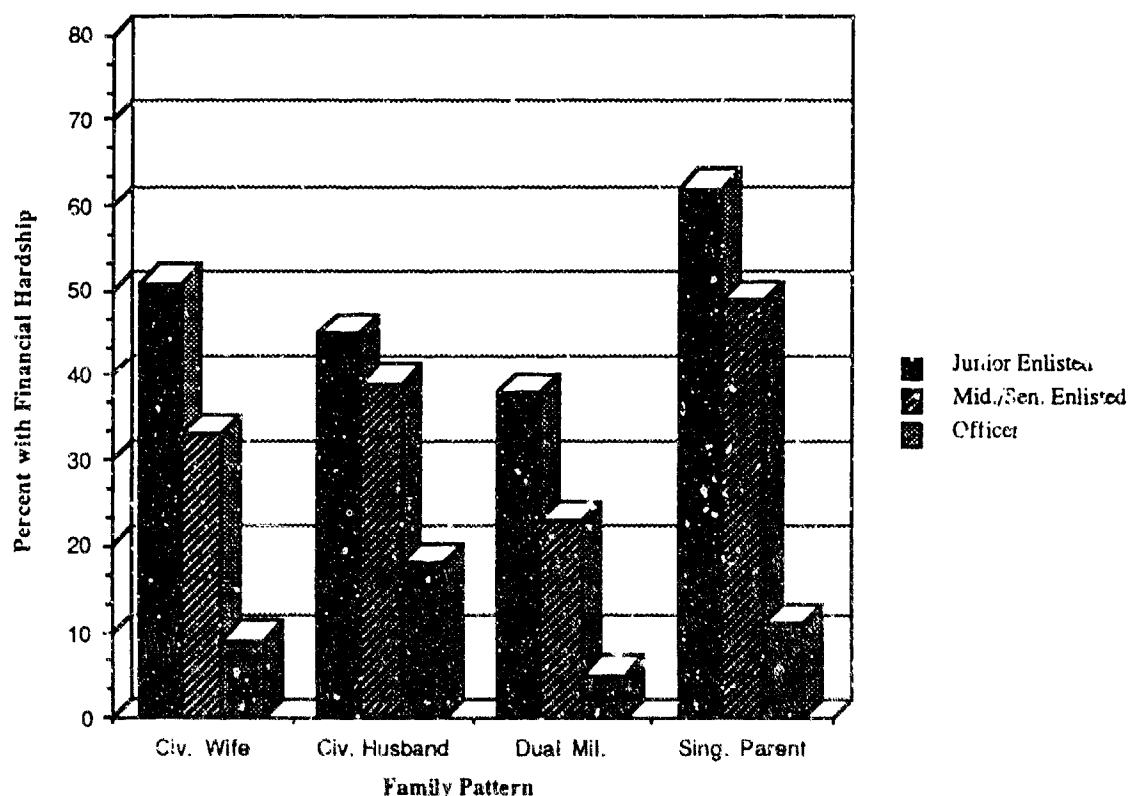


Figure 4. Financial hardship by family pattern with rank/pay grade.

## Adaptive Resources

From a person-environment fit perspective, the success of individuals in meeting their needs and responding to demands from their environment depends on (1) their personal abilities, capabilities and assets and (2) the supplies, opportunities and supports that they may receive or draw upon from the relationships and systems in which they participate. These adaptive resources have been shown to buffer the impacts of stressors, to moderate the effects of stressors on individual and family adaptation, and to directly effect individual and family adaptation. In the present analysis, five levels of adaptive resources were considered: (a) psychological, (b) relationship, (c) family, (d) community, and (e) Army. It is assumed that these levels of adaptive resources operate simultaneously and in reciprocal interaction with one another at any given point in time.

### Psychological Resources

A number of individual abilities, capabilities, and assets have been identified in the literature that are potentially available to the individual for coping with life demands and situations. However, based on the work of Pearlin and Schooler (1978), the present analysis limits its attention to two psychological resources residing in the self: high self-esteem and internal locus of control.

From his literature review, Bowen (1990) nominally defined self-esteem as the positiveness of one's attitude about self. In the present analysis, it is operationalized as the extent to which the individual feels secure, hopeful, and pleased with self. Rotter (1966) introduced the concept "locus of control" into the research literature. Generally defined as the degree of mastery that an individual feels in his or her life, locus of control was operationalized in the present analysis by six items that capture the extent to which the individual is self-directed and confident in his or her ability to produce intended consequences (e.g., "When I make plans, I am almost certain I can make them work"). Within the third and fourth response quartiles, these psychological resources are discussed below as high self-esteem and internal locus of control (see Table 11).

Table 11

## Psychological Resources for Soldiers by Family Pattern

Variables	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
High Self Esteem <sup>a</sup>	57	57	57	53
Junior Enlisted	50	48	50	47
Mid/Senior Enlisted	59	57	59	58
Officer	69	76	67	56
Male	57	**	57	49
Female	**	57	56	54
Internal Locus of Control <sup>b</sup>	45	53	48	41
Junior Enlisted	32	39	36	37
Mid/Senior Enlisted	44	57	53	43
Officer	76	78	75	48
Male	45	**	50	36
Female	**	53	47	44

<sup>a</sup>3rd and 4th quartiles: Coded from low to high self-esteem.

<sup>b</sup>3rd and 4th quartiles: Coded from external to internal locus of control.

As the data on Table 11 indicate, a similar proportion of soldiers across family types reported high self-esteem, ranging from 53 percent to 57 percent of each sample group. The levels of self-esteem were similar for male and female soldiers in each family pattern. The primary differences in self-esteem were associated with rank/pay grade. A higher proportion of officers and senior enlisted personnel reported high self esteem for each of the family patterns that were examined.

More variation was found on the second psychological resource, internal locus of control. Comparatively speaking, a greater proportion of soldiers with civilian husbands (53%) were "inner" directed; only 41 percent of single parent soldiers were found to be "inner" directed, followed by 45 percent of soldiers in civilian wife marriages and 48 percent of soldiers in dual military marriages. Again, there were no significant differences by gender in ratings of internal locus of control. The differences in levels of locus of control were most often noted by rank/pay grade with a greater proportion of soldiers from higher grades than lower grades reporting internal locus of control.

Overall, the findings on psychological resources suggest that there are few differences between soldiers from each of the family patterns. Differences in self-

esteem and internal locus of control are largely associated with the rank/grade of the soldiers, with those from higher grades feeling more personal self-worth and more control over their lives. Junior enlisted personnel are less likely to report those feelings, irrespective of their family patterns.

### Relationship Resources

A viable adaptive resource for both single and married soldiers is the nature and quality of their most intimate interpersonal relationships. For married soldiers, the spouse has been demonstrated to be a critical source of social support, a protective barrier against life stressors (see Bowen, 1991). Recent research by Orthner, Bowen, Zimmerman, and Short (1992) of single soldiers in the U.S. Army also suggests that the boy/girlfriend relationships of these soldiers serve a similar supportive function as marriage does for married soldiers.

In the present analysis, three measures of relationship strength were considered for married soldiers: happy marriage, high spouse communication, and low marital separation risk. In addition, two measures were considered for single parent soldiers: engaged or significantly involved in a relationship, and partner very supportive of Army career (see Table 12).

Marital happiness was measured by a single item that asked soldiers to indicate on a seven-point scale how happy they were with their marriage. High spouse communication was also assessed by a single item. On a five-point scale that ranged from strongly agree to strongly disagree, soldiers indicated their level of agreement with the following statement: "My spouse is someone I can really talk with about things that are important to me." Low marital separation risk was determined by the percent of soldiers who responded that, in the last twelve months, they had had no thoughts about their marriage being in trouble and had neither considered nor pursued divorce or separation.

Table 12

## Relationship Resources for Married and Single Parent Soldiers by Family Pattern

Variable	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parents
	%	%	%	%
Happy Marriage <sup>a</sup>	81	72	77	
Junior Enlisted	80	66	81	
Mid/Senior Enlisted	79	70	71	
Officer	89	82	83	
Male	81	**	77	
Female	**	72	78	
High Spouse Communication <sup>b</sup>	85	76	85	
Junior Enlisted	85	77	87	
Mid/Senior Enlisted	83	68	81	
Officer	92	89	90	
Male	85	**	87	
Female	**	76	82	
Low Marital Separation Risk <sup>c</sup>	65	54	58	
Junior Enlisted	60	49	58	
Mid/Senior Enlisted	65	50	54	
Officer	78	72	71	
Male	65	**	58	
Female	**	54	58	
Engaged or Significantly Involved in Relationship <sup>d</sup>				58
Junior Enlisted				63
Mid/Senior Enlisted				55
Officer				47
Male				54
Female				60
Partner Very Supportive of Army Career <sup>e</sup>				60
Junior Enlisted				53
Mid/Senior Enlisted				68
Officer				68
Male				55
Female				63

<sup>a</sup>Percent responding with a 5, 6, or 7 on a seven-point scale of marital happiness ranging from 1 = "Very Unhappy" to 7 = "Very Happy."

<sup>b</sup>Percent either "Agree" or "Strongly Agree" that their spouse is someone who they can talk with about things that are important to them.

<sup>c</sup>Percent responding that they had had no thoughts or activities in the last twelve months concerning either their marriage being in trouble or about divorce or separation.

<sup>d</sup>Percent reporting that there is an important boyfriend/girlfriend in their life right now.

<sup>e</sup>Percent responding "Very Supportive" on a five point supportiveness item ranging from 1 = "Very Unsupportive" to 5 = "Very Supportive."

To report their relationship involvements, single parents indicated whether they were "now engaged" or "significantly involved" in a relationship with someone. For those single parents who were involved with a significant other, they were also asked how supportive their "girlfriend/boyfriend" was of their being in the Army. In the discussion below, the findings for married soldiers are first considered, followed by those for single parents.

A similarly high proportion of soldiers in civilian wife and dual military marriages reported having a happy marriage, high spouse communication, and low marital separation risk. On all three indicators, however, a smaller proportion of soldiers with civilian husbands gave a positive response on each of these indicators of relationship resources. This is particularly true for low marital separation risk in which a greater proportion of male soldiers with civilian wives (65%) reported low risks for separation compared to female soldiers with civilian husbands (54%). Comparisons of male and female soldiers in dual-military marriages did not yield significant differences in the perceptions of relational strength for men and women.

On each measure of relationship strength, a higher proportion of officers indicated positive ratings of their marriages compared to enlisted personnel. This was true for all three marital patterns.



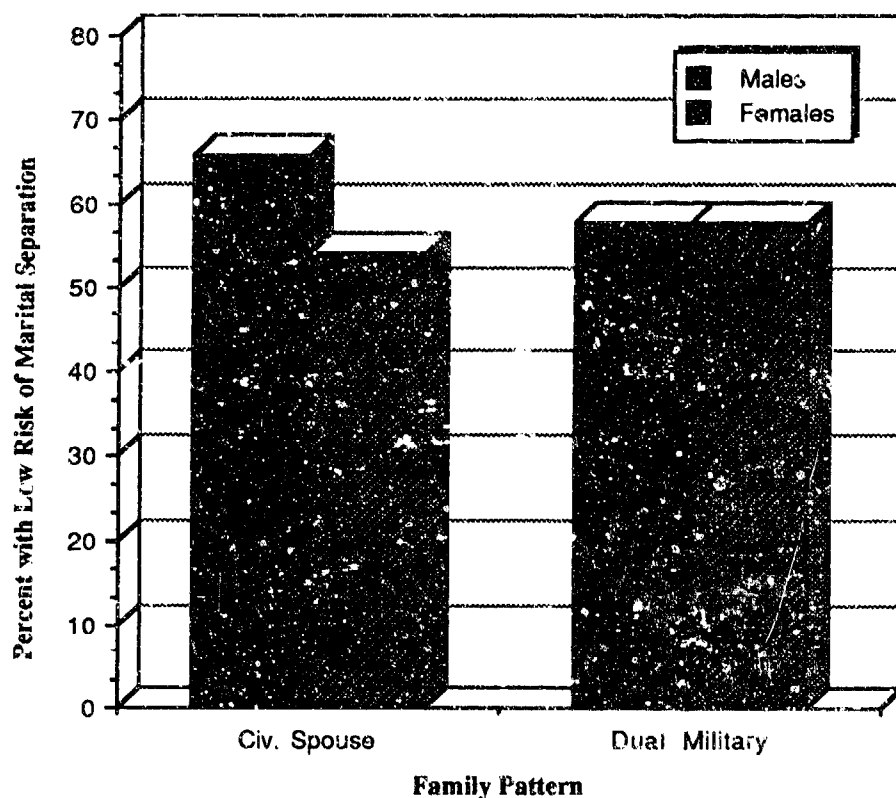


Figure 5. Low risk of marital separation by family pattern with gender.

As indicated in Table 12, the majority of single parent soldiers (58%) described themselves as engaged or significantly involved in a relationship. Moreover, in sixty percent of cases where single parents were involved with a significant other, the single parent described the partner as "very supportive" of their Army career.

A similar proportion of male and female single parents (54% and 60%, respectively) reported that they were engaged or significantly involved with boyfriends or girlfriends. In addition, the proportion of single parents who reported a significant other varied only modestly by the enlisted rank/pay grade of the single parent. A greater proportion of junior enlisted single parents (63%) were involved in relationships than mid/senior enlisted single parents (55%).

Similar to the findings for involvement, only modest differences were found in the proportions of male (55%) and female (63%) single parents who reported their significant others as "very supportive" of their Army career. However, in comparisons across enlisted pay grade, a greater proportion of mid/senior enlisted single parents in relationships (68%) described their significant others as "very supportive" than did junior enlisted single parents in relationships (53%).

## Family Resources

The family system is often regarded as the primary support system for its members, the hub of activity where family members provide instrumental and expressive support to one another (Bowen, 1990; Orthner, 1990). Through their social interaction over time, individuals in the family create a "family culture" that has considerable influence on their individual and family system coping and adaptation.

Two indicators of family resources were considered in the present analysis: high family strength and coherence and high satisfaction with parent-child relationship (see Table 13). The first indicator, high family strength and coherence, was derived from the work of Antonovsky and Sourani (1988). Consisting of three items, the measure captures the sense of confidence that soldiers have in the ability of their families to remain optimistic in rough periods, cooperate together when times are tough, and to solve problems. Satisfaction with the parent-child relationship was based on a sum of four items that were each assessed on a five-point satisfaction scale. Soldiers were asked how satisfied they had been over the last month with the amount of time they spend with their children, their ability to meet their children's emotional needs, their ability to meet their children's educational/learning needs, and the overall quality of time they spend with their children.

Table 13

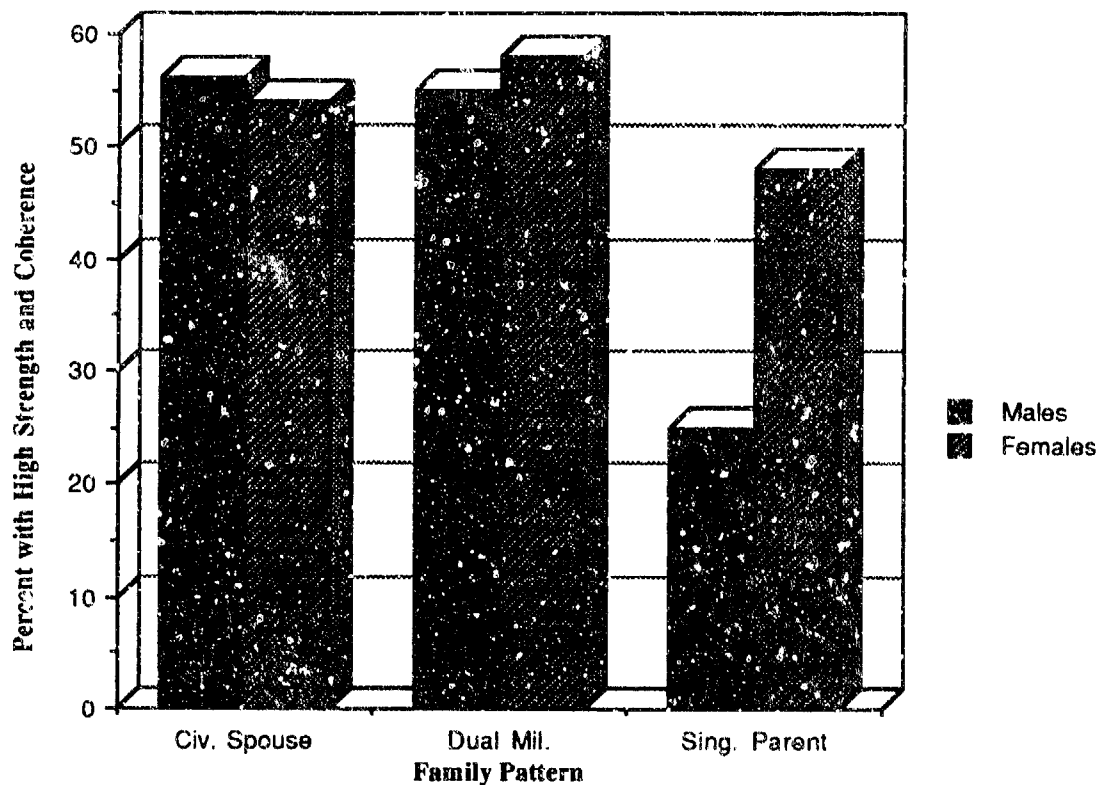
### Family Resources for Soldiers by Family Pattern

Variables	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
High Family Strength and Coherence <sup>a</sup>	56	54	57	38
Junior Enlisted	53	43	57	41
Mid/Senior Enlisted	56	56	53	35
Officer	67	69	66	52
Male	56	**	55	25
Female	**	54	58	48
High Satisfaction with Parent-Child Relationship <sup>b</sup>	47	42	45	45
Junior Enlisted	42	42	41	46
Mid/Senior Enlisted	48	42	49	44
Officer	48	41	47	40
Male	47	**	52	38
Female	**	42	39	50

<sup>a</sup> 3rd and 4th quartiles: Coded from low to high family strength & coherence.

<sup>b</sup> 3rd and 4th quartiles: Coded from low to high parent-child relationship satisfaction.

As the data in Table 13 indicate, the proportion of single parent soldiers (38%) reporting high levels of family strength or coherence was significantly lower than that of soldiers in married family patterns (ranging from 54% to 57%). This comparatively low level of family strength is primarily associated with single parent males, only 25% of which reported a high level of family strength in comparison to 48% of female single parent soldiers (see Figure 6). Among married soldiers, the lowest levels of family strength were found among junior-enlisted females who are married to civilian husbands (43%). This comparatively low level of strength and coherence may help to explain the lower levels of marital happiness and greater risks of separation among these Army families.



**Figure 6.** High strength and coherence by family pattern with gender.

Among those families with children, there were few differences in the overall ratings of parent-child satisfaction. However, when gender was controlled in the analysis, a higher proportion of female single parent soldiers (50%) reported high parent-child relationship satisfaction than females in civilian spouse marriages (42%) or dual military marriages (39%). Among males, a lower proportion of single parent soldiers (38%) reported high parent-child relationship satisfaction than either those in civilian spouse marriages (47%) or dual military marriages (52%). It would appear

from the data that fathers in civilian wife and dual-military marriages and mothers in single parent families experienced similar levels of parental satisfaction and adjustment. Lower levels of parental satisfaction and adjustment were more common among mothers in civilian husband and dual-military marriages and among single parent fathers. For these male and female soldiers, balancing work and family demands may be more difficult.

### Social and Community Resources

Social and community resources serve to buffer and moderate the effects of stressors on the level of family adaptation experienced by soldiers. These resources shield the individual from stressful events and situations and reduce the negative impacts of those that permeate protective barriers. Four social and community resources were reviewed in this analysis: social support availability, access to a community support network, community satisfaction, and preference for the Army compared to civilian community. Each was a scale that was computed from low to high. In each case, the proportion of soldiers who scored in the upper half of these scales for the total sample of soldiers is presented in Table 14.

Social support was measured by a scale that assessed the level of support that the soldier could expect at the current location from either a friend, neighbor, or relative (besides the spouse, if married) outside the home under six hypothetical situations (e.g., listen to you when you need to talk, go with you to do something enjoyable, provide transportation when you need it). Unlike social support that reflected different types of instrumental and expressive support that is available to the soldier, the assessment of community support network focused on six different sources of support from whom the soldier could potentially rely on for help with a personal or family problem: a leader at your place of duty, someone else you work with, a neighbor or friend who is in the Army, a neighbor or friend who is not in the Army, staff of an Army service agency, parents or other close relatives.

Table 14

## Social and Community Resources for Soldiers by Family Pattern

Variables	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
High Social Support Availability <sup>a</sup>	53	59	52	58
Junior Enlisted	51	68	53	69
Mid/Senior Enlisted	54	48	51	51
Officer	55	62	52	52
Male	53	**	52	42
Female	**	59	53	71
High Community Support Network <sup>b</sup>	47	45	49	47
Junior Enlisted	43	51	44	50
Mid/Senior Enlisted	47	38	53	46
Officer	56	49	46	52
Male	47	**	48	41
Female	**	45	50	53
High Community Satisfaction <sup>c</sup>	44	52	54	48
Junior Enlisted	39	48	46	54
Mid/Senior Enlisted	44	50	59	40
Officer	54	54	62	68
Male	44	**	55	41
Female	**	52	52	52
Prefer Army Community to Civilian Community <sup>d</sup>	47	58	52	46
Junior Enlisted	39	55	43	49
Mid/Senior Enlisted	50	63	60	44
Officer	50	56	55	49
Male	47	**	53	31
Female	**	58	52	59

<sup>a</sup>3rd and 4th quartiles: Coded from low to high social support.

<sup>b</sup>3rd and 4th quartiles: Coded from low to high community support network.

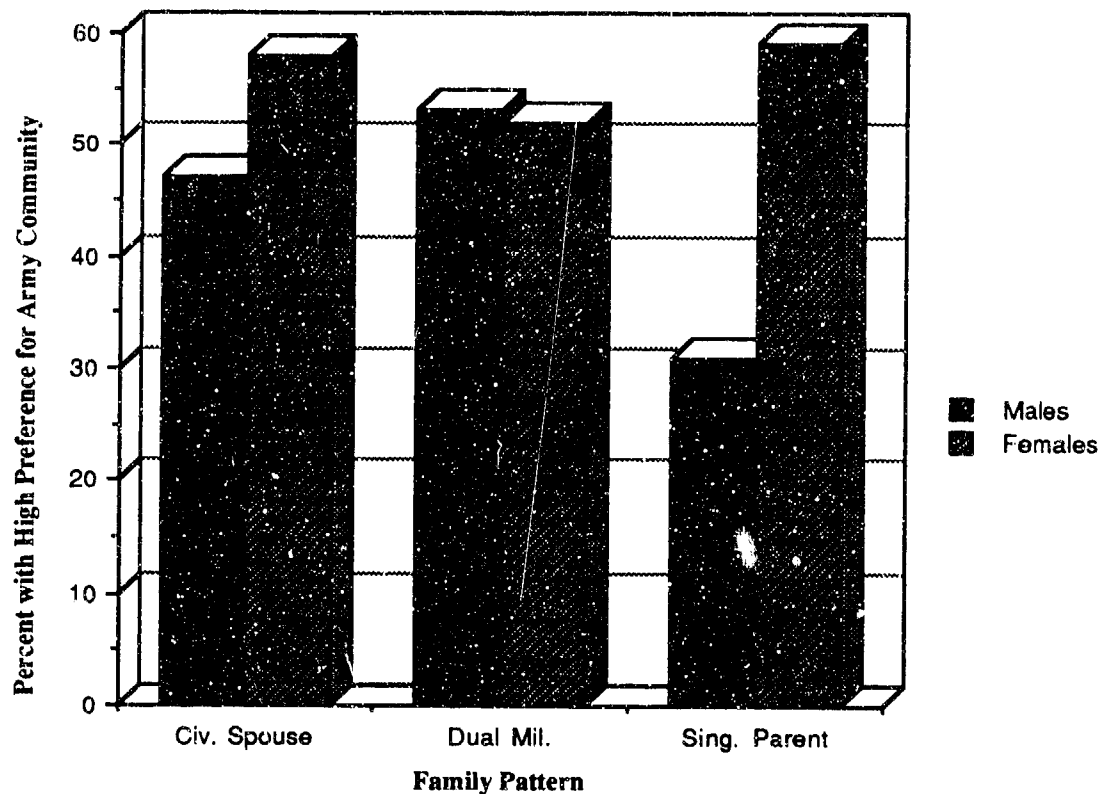
<sup>c</sup>3rd and 4th quartiles: Coded from low to high community satisfaction.

<sup>d</sup>3rd and 4th quartiles: Coded from much better in civilian life than in Army life to much worse.

The final two scales were identical in the items that comprised them but varied in their response stems. To assess community satisfaction, soldiers were asked to rate six features of community life at their present location from "Very Good" to "Very Bad": quality of place for children to grow up, quality of schools for children, quality of medical care for family members, programs and services for families, quality of community they live in, and opportunity to make good friends. The extent to which the soldier preferred the Army community to the civilian community was determined by having soldiers rate these same six items from "Much Worse in Civilian Life" to "Much Better in Civilian Life" than in Army life.

Soldiers across the four family pattern types were remarkably consistent in their responses to social and community resources (see Table 14). Proportional differences between groups were very small for both high social support availability and high community support network. In the case of both high community satisfaction and preferences for the Army community compared to the civilian community, a slightly greater proportion of soldiers with civilian husbands (52% and 58%, respectively) and in dual military marriages (54% and 52%, respectively) gave positive responses than either soldiers with civilian wives (44% and 47%, respectively) or single parent soldiers (48% and 46%, respectively).

When male and female soldiers were separately examined, some significant differences in social and community resources did appear. Most notably, male single parents reported lower levels on every measure of social and community resources when compared to female single parents, especially for high social support availability and preference of Army community to civilian community. A lower proportion of male soldiers with civilian wives reported both high community satisfaction and preferences for living in an Army community than female soldiers married to civilian husbands. The proportions that reported high community and social support, however, were not markedly different.



**Figure 7.** High preference for Army community by family pattern with gender.

The use of and satisfaction with social and community resources is much less consistent across family patterns when examined by rank/pay grade of the soldiers. Among single parents, the proportion of junior enlisted personnel expressing high social support and community satisfaction was greater than that of more senior enlisted personnel. Among those in dual military marriages, however, a higher proportion of mid to senior enlisted personnel reported high community support networks and preferences for living in an Army community. In civilian husband marriages, the proportion of female soldiers who reported high levels of social and community support was lowest among those who were NCO's, even though these same soldiers were the most likely to prefer living in an Army community.

### Army Support Resources

The Army has taken major steps over the last several decades to develop a "safety net" of supportive programs and services for soldiers and their families. However, the perceptions of soldiers toward the supportiveness of the Army's culture for families extend beyond the undergirding network of programs and services. These perceptions also greatly depend on the nature of family-related activities and informal supports that soldiers experience in their work units on a day to day basis.

Four Army adaptive resources were reviewed in this analysis: Army policy support, leadership support for families, unit leader support for families, and unit supervisor support for families. Each was a scale that was computed from low to high. In each case, the proportion of soldiers who scored in the upper half of these scales for the total sample of soldiers is presented in Table 15.

Army policy support was measured by eight items that asked soldiers to rate the helpfulness of a number of policies that may affect families, such as family support during deployment, permanent change of station, military child care priority, and emergency financial assistance. Each item was evaluated on a response continuum from "Very Harmful" to "Very Helpful." Leader support for families was a three-item measure for which soldiers evaluated the degree to which the following leaders at their current location were supportive of Army families: officers in high post/installation positions, officers at place of duty, and NCOs at place of duty. Each was rated on a response continuum from "Very Unsupportive" to "Very Supportive."

Unit leader family support consisted of three items in which soldiers evaluated the extent to which leaders in their unit or place of duty encouraged unit-wide family activities, knew about Army family programs, and would be concerned about the welfare of soldiers' families should a war break out. Each item was assessed on five-point scale from "Not at All" to "Very Great Extent." Unit supervisor family support was assessed by having soldiers evaluate the responsiveness of their supervisor to family welfare and to needs and situations that sometimes confront soldiers in their work unit. Four items were rated by soldiers on a response continuum from "Very Seldom or Never" to "Very Often or Always," including the willingness of the supervisor to listen to a soldier with a family problem, the degree to which the supervisor shows a genuine interest in the welfare of families, and the willingness of the supervisor to allow soldiers off for urgent family matters.



Table 15

## Army Support for Soldiers by Family Pattern

Variables	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
High Army Policy Support <sup>a</sup>	56	55	48	58
Junior Enlisted	55	57	48	57
Mid/Senior Enlisted	57	58	51	59
Officer	54	45	42	47
Male	56	**	46	50
Female	**	55	52	63
High Leader Support for Families <sup>a</sup>	46	43	43	44
Junior Enlisted	32	35	33	42
Mid/Senior Enlisted	49	41	47	43
Officer	64	63	58	67
Male	46	**	45	47
Female	**	43	40	41
High Unit Leader Support for Families <sup>a</sup>	41	39	38	37
Junior Enlisted	29	33	35	29
Mid/Senior Enlisted	44	40	38	43
Officer	60	48	47	57
Male	41	**	39	40
Female	**	39	37	36
High Unit Supervisor Support for Families <sup>a</sup>	56	54	54	49
Junior Enlisted	42	47	46	40
Mid/Senior Enlisted	58	55	59	52
Officer	74	71	63	82
Male	56	**	55	49
Female	**	54	54	48

<sup>a</sup> 3rd and 4th quartiles: Coded from low to high.

As the data in Table 15 indicates, similar proportions of soldiers across the four family pattern types reported high Army policy support, high leader support for families, high unit leader support for families, and high unit supervisor support for families. In addition, when the association between Army resources and family pattern types was further analyzed by gender, only one significant proportional difference emerged. A higher proportion of female single parents (63%) than male single parents (50%) perceived high Army policy support at their current location.

When perceived Army supportiveness was analyzed in the context of rank/pay grade, some differences emerged in comparisons across the four indicators of Army resources. These differences were most apparent in the levels of support reported by officers in civilian wife marriages and officers in the remaining marital types. A higher proportion of officers with civilian wives (54%) indicated high Army policy support than either those with civilian husbands (45%) or those in dual military marriages (42%). Distinctions between pay grade were most apparent for soldiers with civilian husbands. While the proportional difference between junior enlisted soldiers (57%) and mid/senior enlisted soldiers (58%) was modest, a lower proportion of officers with civilian husbands (45%) reported high Army policy support. Within each married family pattern type, a higher proportion of officers reported high leader support for families, followed by mid/senior enlisted soldiers, followed by junior enlisted soldiers (see Figure 8). There were no differences among single parents in the junior enlisted and mid/senior enlisted pay grades in reported high leader support for families.

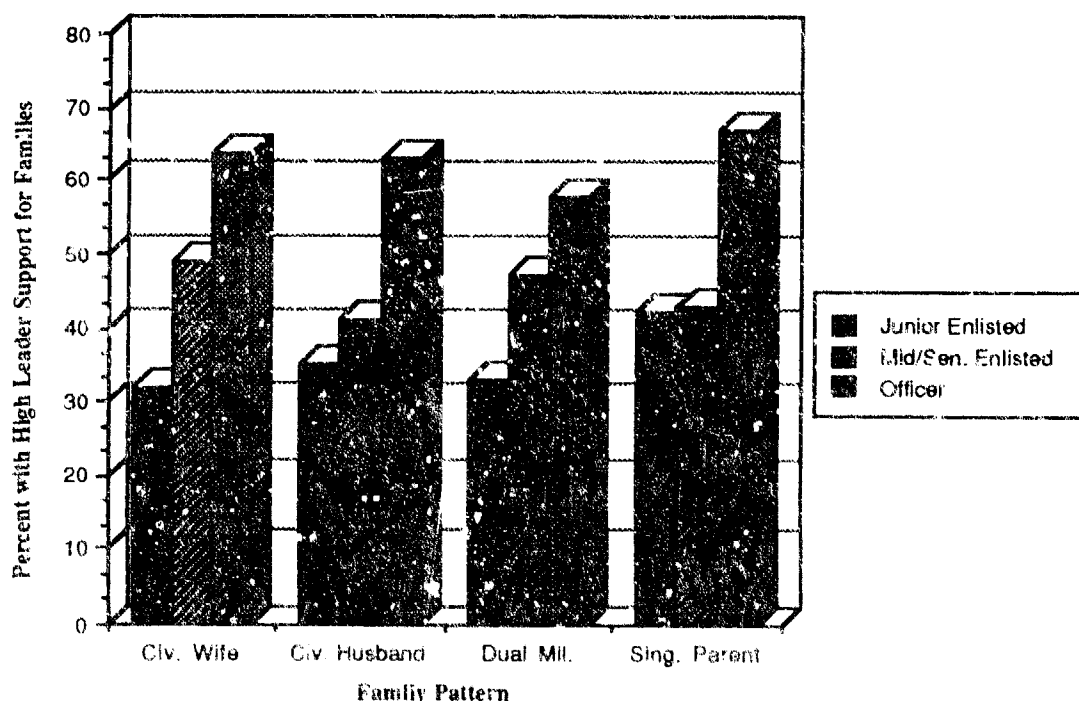


Figure 8. High leader support for families by family pattern by rank/pay grade.

Overall, leadership support for families, whether at the Army policy, installation leader, or unit leader levels, is similarly perceived by Army families across each of the family pattern types reviewed. Single parents are somewhat less likely to perceive that they have support from their unit supervisor, but in general, the proportional differences in levels of perceived support are relatively minor. It is interesting to note that a high proportion of single parent females perceive that Army families are supported by Army policies, a factor that may explain their relatively high levels of satisfaction with the Army as a way of life. In most cases, officers are more likely to perceive that they are receiving unit and installation level leadership support, while junior enlisted personnel are the least likely to perceive that families receive high levels of support from these leaders. Somewhat in contrast, however, officers in dual military marriages and female officers with civilian husbands are less likely to perceive high levels of support from policies directed toward Army families. These female officers may experience more difficulty reconciling their family life patterns with the demands placed on them by the Army and its diverse policies that affect family life.

### Family Adaptation

The definition and measurement of family adaptation has received considerable attention over the last decade by social and behavioral scientists who study military families. In earlier research and reviews, family adaptation was conceptualized broadly, encompassing a number of psychological, relationship, social, and community indicators. Yet, a challenge in these earlier studies was to distinguish indicators of family adaptation from their correlates. Consistent with Orthner and Bowen's (1990) recent integrative review, family adaptation is defined in the present analysis from an "organization outcome" perspective: the degree to which soldiers and their family members cope and adjust to the demands of Army and family life and work together as a team in meeting Army expectations and achieving individual and collective goals.

In the present review, two components of family adaptation are considered: (a) coping and adjustment, and (b) fit and spouse support among married soldiers.

### Coping and Adjustment

From a person-environment fit perspective, family adaptation is conceptualized as the level of "fit" between "demands and abilities" and "needs and resources" (Caplan, 1983). According to Lazarus and Folkman (1984), individuals are constantly appraising their situation to determine their level of fit and to determine if any corrective action is necessary to increase the level of congruency between their perceived "demands/needs" and their perceived "resources/abilities." Consequently, at any one time, individuals have some awareness of how well they are dealing with their responsibilities and adjusting to life demands.

Three measures of coping and adjustment were studied in the present analysis: (a) coping with work responsibilities, (b) coping with family responsibilities, and (c) family adjustment to Army demands. Each of these measures consisted of a single item that was measured on a seven point response continuum. In each case, the

proportion of soldiers who responded with either a six or seven is presented in Table 16.

Table 16

Coping and Adjustment for Soldiers by Family Pattern

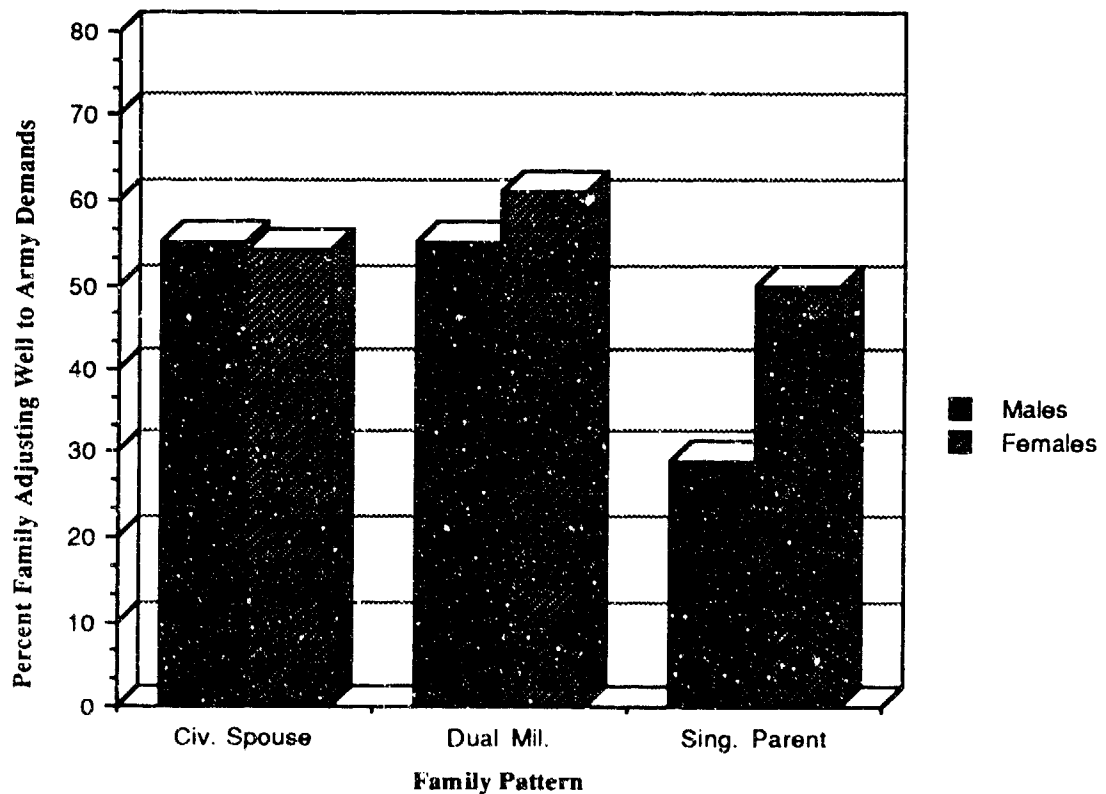
Variables	Family Pattern			
	Civilian Wife	Civilian Husband	Dual Military	Single Parent
	%	%	%	%
Coping with Work Responsibilities <sup>a</sup>	65	59	65	62
Junior Enlisted	55	48	58	65
Mid/Senior Enlisted	68	67	70	59
Officer	73	67	70	59
Male	65	**	69	56
Female	**	59	61	67
Coping with Family Responsibilities <sup>a</sup>	59	56	59	59
Junior Enlisted	57	52	59	64
Mid/Senior Enlisted	62	58	61	55
Officer	51	57	49	49
Male	59	**	59	49
Female	**	56	59	66
Family Adjustment to Army Demands <sup>b</sup>	55	54	58	41
Junior Enlisted	38	39	48	34
Mid/Senior Enlisted	60	62	63	37
Officer	72	69	73	49
Male	55	**	55	29
Female	**	54	61	50

<sup>a</sup> Percent with a six or seven on a seven-point scale ranging from "Not at all Successful" to "Extremely Successful."

<sup>b</sup> Percent giving either a six or seven on a seven-point scale that was coded from "Extremely Badly" to "Extremely Well."

As seen in Table 16, a similar proportion of soldiers across family pattern types reported high levels of coping with work and family responsibilities, ranging from a low of 56 percent to a high of 65 percent across the two measures. While a similar proportion of married soldiers across family pattern types also reported that their family had adjusted well to the demands of being an Army family (ranging from 54 percent to 58 percent), only about two-fifths (41%) of single parents reported high family adjustment to Army demands.

When the data were analyzed by gender, the most striking trend was the differences between male and female single parents (see Figure 9). A greater proportion of female single parents than male single parents reported high coping with work responsibilities (67% and 56%, respectively), high coping with family responsibilities (66% and 49%, respectively), and, especially, high family adjustment to Army demands (50% and 29%, respectively). Proportional differences in the coping and adjustments of married male and female soldiers were not significant.



**Figure 9.** Family adjusting well to Army demands by family pattern with gender.

When coping and adjustment were examined by the rank/pay grade of the soldier, several significant patterns also emerged. Not surprisingly, as compared to their more senior counterparts, a lower proportion of junior enlisted married personnel in each of the three marriage patterns reported high levels of coping with work or family adjustments to the Army. Married officers were most likely to report high levels of family adjustment to Army demands, while both officers and mid to senior enlisted personnel reported higher levels of coping with work demands. In terms of coping well with family responsibilities, with one exception, the rank/pay grade of the soldier did not appear to impact significantly on their own personal level of coping: a

lower proportion of officers in dual military marriages reported high coping with family responsibilities than their enlisted counterparts.

On most of the measures of coping and adjustment, soldiers in the mid-to-senior enlisted grades reported relatively high levels of adaptation. This was less likely to be the case, however, of single parents in these pay grades, especially in the proportion of single parents who reported high adjustment to Army demands (see Figure 10).

Overall, it appears that there are more similarities than differences in family adjustments of married soldiers, irrespective of their family pattern, including civilian wife, civilian husband, and dual military marriages. In these marriages, male and female soldiers were adapting similarly, while junior enlisted soldiers reported somewhat lower levels of coping with work responsibilities and family adjustments to Army demands. Among single parents, however, male soldiers were proportionately less likely to report high levels of family adaptation. Single parent soldiers in the mid to senior enlisted grades, the majority of whom are males, were also less likely to report high levels of work and family coping and adjustment in comparison to their married counterparts.

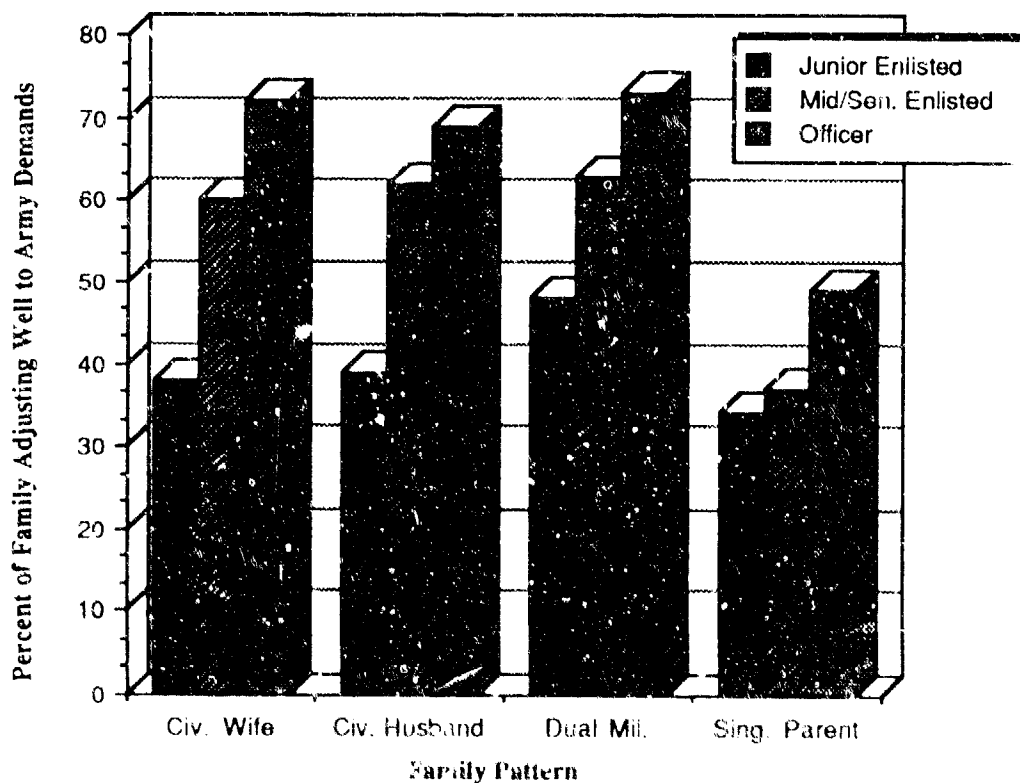


Figure 10. Family adjusting well to Army demands by family pattern with rank/pay grade.

### Army-Family Fit and Spouse Support: Married Soldiers

In recent interviews with married soldiers about the qualities that best distinguish couples most able to cope with the demands of Army life, the terms "teamwork" and "mutual support" came up frequently (Styles, Janofsky, Blankinship, & Bishop, 1988). Consequently, it is not surprising that both high Army-family fit and spouse support of the soldier being in the Army are considered important components of family adaptation among married soldiers.

The level of Army-family fit was determined by the sum of three items that captured the level of teamwork between the soldier and spouse in meeting the demands of Army life (e.g., "my spouse and I consider ourselves to be a team working for Army goals," "my spouse does a great deal to further my career"). Each item was evaluated by soldiers on a five-point response continuum from "Strongly Disagree" to "Strongly Agree." Soldiers who scored in the upper half of the scale for the total sample of married soldiers were considered to evidence high Army-family fit. Spouse support was measured by a single item that asked soldiers to evaluate the level of support that they received from their spouses for being in the Army. Soldiers who rated their spouses as "Very Supportive" are presented in Table 17.

Table 17

#### Army-Family Fit and Spouse Support for Married Soldiers by Family Pattern

Variables	Family Pattern		
	Civilian Wife	Civilian Husband	Dual Military
	%	%	%
High Army-Family Fit <sup>a</sup>	48	40	67
Junior Enlisted	33	32	53
Mid/Senior Enlisted	52	40	78
Officer	59	55	75
Male	48	**	71
Female	**	40	63
Very Supportive Spouse <sup>b</sup>	45	49	57
Junior Enlisted	32	43	46
Mid/Senior Enlisted	50	45	65
Officer	56	67	63
Male	45	**	58
Female	**	49	56

<sup>a</sup> 3rd and 4th quartiles: Coded from bad to good fit between families and Army.

<sup>b</sup> Percent giving a five on a five-point scale ranging from "Very Unsupportive" to "Very Supportive."

As the data in Table 17 indicate, a greater proportion of soldiers in dual military marriages than those married to either civilian wives or civilian husbands reported high Army-family fit and very supportive spouses. Moreover, these proportional differences among family pattern types remained consistent when analyzed separately for male and female soldiers.

When the data were further examined by the pay grade of the married soldier, additional information was provided. First of all, a comparatively high proportion of officers in civilian spouse marriages and both mid and senior enlisted soldiers and officers in dual military marriages reported high Army-family fit and spouse support. In contrast, a lower proportion of junior-enlisted soldiers reported spouse support and high Army-family fit across family pattern types, but especially in civilian wife marriages. These findings suggest that being married to another service member may increase perceptions of spouse support as well as promote high levels of Army-family fit (see Figure 11). This was especially true among enlisted soldiers.

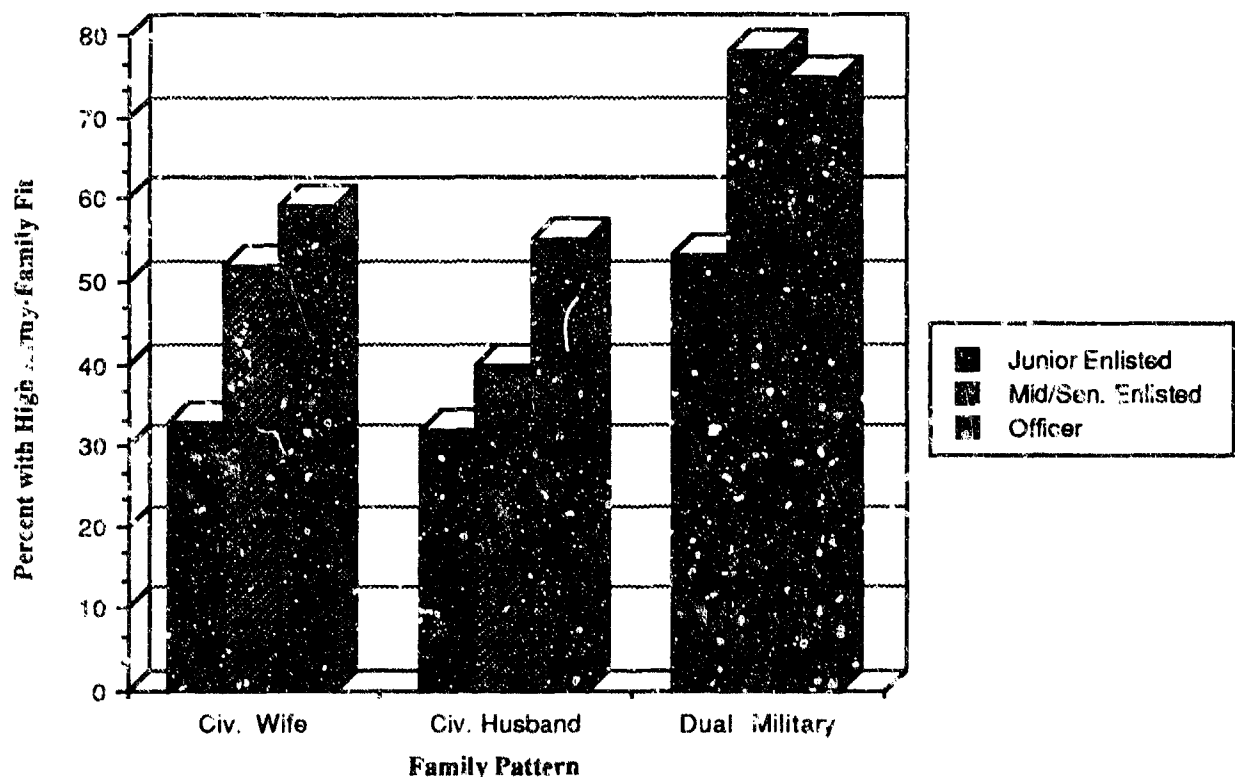


Figure 11. High Army-family fit by family pattern with rank/pay grade.



## CONCLUSIONS AND DISCUSSION

Based on the Army Family Research Program, this report provides the first major comparative review of the stresses, strengths, and adaptations of soldiers living in different patterns of family relationships. The research provides a unique examination of soldiers who are in civilian-wife, civilian-husband, dual military, and single parent households. The data reviewed in this report indicate that the boundaries between these relationship patterns are quite fluid with soldiers' potentially moving from one family pattern to another over the course of their soldier careers. The traditional civilian-wife marriage, while still in the majority, is increasingly complemented by other family patterns that are either elected by soldiers or the result of unplanned changes in their personal or work situations.

The complexity of family life today, both within the military and outside, is increasingly being recognized as the norm rather than the exception. The family patterns discussed in this report are recognized as a normal part of the fabric of the personnel who make up the military services today. Therefore, it is important for Army policymakers, leaders, and service providers to understand these relational patterns and their potential effects on soldiers and their adaptation to the Army and its demands.

### Major Findings

*Army family patterns can be distinguished by underlying demographic differences.* The data suggest that differences in levels of stress and adaptation among soldiers from different family patterns may be tied to the distinctive personal, family, and work characteristics of these households rather than to the patterns per se. For example, soldiers in dual military marriages and civilian-husband marriages tend to be younger and less likely to have children than their counterparts who are married to civilian wives. More than one-half of female soldiers in dual military marriages and in single parent households were in the junior enlisted ranks, and a comparatively larger proportion of single parent males reported a GED as their highest level of education. Failure to understand these and other differences can result in work and family outcomes being associated with a family pattern when they are more likely to be tied to underlying demographic differences.

*Relatively few differences exist in the distributions of family patterns across the Army.* All four family patterns are equally distributed in CONUS, Europe, and other OCONUS locations. There are very few differences in distributions of these family patterns across major commands in the Army, with the exception of the Health Services Command, which tends to have a higher proportion of soldiers from civilian-husband marriages. The only major differences occur in the types of units to which the soldiers in these family patterns are assigned. A higher proportion of soldiers in civilian-wife marriages were assigned to combat units, primarily because all of these soldiers are males, while the other patterns are either all female (civilian-husband) or both male and female. Given restrictions on women in combat, a higher proportion of females are assigned to duties in combat support service and TDA units.

*Each family pattern type is dominated by young families.* Forty percent or more of civilian husband, dual military, and single parent families are in the junior enlisted pay grades. Of those with children, the majority of soldiers in each family pattern type had at least one child of pre-school age or younger. Furthermore, 10% of married female soldiers and 8% of the spouses of male soldiers were pregnant at the time of the survey.

*Nearly one-fifth of civilian wife marriages include a foreign-born spouse.* Given the high proportion of single male soldiers who are stationed overseas, it is not surprising that a number of soldiers marry women who are born outside the U.S. to non-U.S. citizen parents. Although fewer than ten percent of male officers are married to foreign-born wives, these marriages are more common in the enlisted ranks: nearly one-quarter of male soldiers in the pay grade/rank Senior Enlisted are married to foreign-born wives. Only seven percent of female soldiers with civilian husbands described their spouses as foreign born.

*A relatively high proportion of unemployed and discouraged workers exist among the civilian wives and the civilian husbands of soldiers.* Although either full-time or part-time employment was the modal pattern for both civilian wives and civilian husbands, 17% of civilian wives and 15% of civilian husbands were unemployed and looking for a job. Another 13% of civilian wives and 9% of civilian husbands were unemployed and wanted to work but were not actively seeking employment. These findings suggest that unemployment is a "civilian spouse" issue and is not just a problem faced by civilian wives. It is likely that these findings help explain why more than one-third of both male and female soldiers married to civilian spouses experienced at least one month over the past twelve months where they lacked money to pay their bills.

*Over one half of single parent soldiers are involved in partner relationships.* Just as it has been shown in recent research that single, unmarried soldiers without dependents are often involved in relationships with boyfriends and girlfriends (Orthner, Bowen, Zimmerman, & Short, 1992), single parents in the Army are also quite commonly involved in relational attachments. In fact, a higher proportion of single parents than single soldiers were involved in partner relationships. Most of these relationships are with other soldiers or former military members.

*There are no major differences in level of stress or personal and family adaptation among soldiers from the three marriage patterns reviewed.* Even though multiple indicators of personal, family and work stress were reviewed, no significant differences were found across family patterns. The same was true for the major indicators of adaptive resources and adaptation outcomes across these patterns. Differences found were primarily attributed to the rank/pay grade of the soldier and, in some cases, to the gender of the soldier. Overall, soldiers from the junior enlisted grades were more likely to report stress and have fewer successful adaptation outcomes.

*Irrespective of family pattern type, a high proportion of junior enlisted soldiers experience financial hardship.* Although the findings suggest that "money problems" are not only restricted to junior enlisted soldiers, a higher proportion of junior enlisted

soldiers than their more senior counterparts across family pattern types report that they had experienced at least one month over the past twelve months where they have lacked money to pay their bills. These percentages ranged from a low of 38 percent of junior enlisted soldiers in dual military marriages to a high of 62 percent of junior enlisted soldiers in single parent households.

*Male single parents experience significantly more problems with job and family stresses and family adaptation than female single parents.* On many of the measures of stress and adaptation, single parents appear to have more problems than married soldiers. Upon further analysis, however, it was found that these differences can be largely attributed to male single parents who consistently report more difficulties than single parent females in managing their personal and family lives. In contrast, female single parents tend to feel very good about themselves, the Army, their supervisors and leaders, and their relationships with their children. On most indicators, their responses were very similar to married soldiers.

*Levels of Army-family fit are highest among dual military marriages.* These marriages appear to have the greatest level of coherence in their values about the Army and Army families. In many ways they represent a prototype of the "Organization Family" (Bowen and Orthner, 1989) for whom organization and family values are much more inextricably linked. Since both marital partners are in the Army, they are more likely to understand one another's needs as well as those of the military system. This serves as a basis for their connections to one another as well as to their service obligations.

*Connections to social and community support systems are not significantly different among families with different patterns of relationships.* None of the family pattern types per se differs significantly in the support that they receive from informal social support networks or from Army agencies and unit leaders. On these measures of support, however, single parent male soldiers are significantly less likely to feel connected than either their female single parent counterparts or married male soldiers. This pattern of lower levels of social and community support among single parent men may be a major factor in their higher levels of personal and family stress and lower levels of family adjustment to Army demands.

#### Recommendations for Service Providers

*Relationship support programs are needed by Army families in all family pattern types.* Although a similar proportion of soldiers within family pattern types report high adjustment across most dependent indicators, a relatively large minority (one-fourth to one-third) are experiencing difficulty in their relationships with their partners and/or with their children. These families are experiencing relatively high levels of stress and may find it difficult to keep that stress from influencing their work. Programs to strengthen relationships are needed in addition to programs that respond to families that are already in crisis.

*Family support services should target junior enlisted families.* These families are the most distressed and the least connected to informal and formal systems. Many of their problems may be tied to relatively serious financial difficulties. To be

effective, agencies must reach out to these families rather than waiting for them to come in for help.

*Services for families with young children need to expand.* Army families are young and often have very young children. Therefore, these families would benefit not only from child care, but also from parent education, parental support groups, and marriage enrichment for young families. These are the families that are most likely to be experiencing family and work problems, and without support, they can become the seeds for movement into single parenthood.

*Social support groups are needed for single parent men.* A higher proportion of single parent men than single parent women are socially isolated. They are also more likely than their female counterparts to have older children and to be in higher ranks/pay grades. This makes them vulnerable to personal and social isolation and to high levels of distress. Support groups that are targeted to these men can help alleviate this isolation and stress, especially if the support is delivered in a safe and non-threatening social environment.

*Services to enhance the employment opportunities of civilian spouses continue to be needed.* The serious financial problems of many young Army families require that spouses often seek and gain employment. Relative high numbers of civilian spouses are currently seeking employment, and continued assistance is needed. In addition, the employment needs of civilian husbands should not be ignored. A relatively high proportion of these men also desire employment, but their needs are less likely to be understood or met by traditional spouse employment programs targeted to women.

*Family planning services should be directed to young single soldiers, especially single parents.* Of the 6% of female single parents who were pregnant, all were in the junior enlisted grades. These young women may benefit from family planning assistance that is often available from medical providers on post and, in CONUS, in local civilian public health clinics.

*Efforts to develop family support groups should be expanded.* These support groups are not only needed during major deployments or field exercises, but also as a means of building informal social networks to help manage day to day needs and concerns. Formal services should seek to augment and facilitate the development of informal support networks.

### **Recommendations for Education and Training**

*Include in basic leaders' courses a curriculum on the diversity of family patterns in the Army.* Leadership should be prepared to recognize that Army families today are just as diverse as civilian families. Leaders need to learn to positively influence soldiers to make their family relationships constructive while still maintaining soldier commitment to and performance in the Army. The results of this analysis clearly suggest that stereotypes about soldiers based on their family pattern types are unjustified and fail to capture the demographic and outcome diversity within each family pattern type.

*Include in command and NCO training a component on building relationships between families in Army units.* Persons who direct soldiers should be aware of the importance of cohesion in the unit as well as cohesion among the families that support the soldiers in the unit. Strengthening relationships between families should provide increased understanding of unit demands and increased support for the stresses associated with Army life. This helps to facilitate stronger families and better performing soldiers.

*Provide training on soldiering and fathering in the schools for services providers, including chaplains, Army community service providers, social workers, MWR personnel, and other relevant providers.* These persons should be professionally prepared to assist men in reconciling their work and family demands and responsibilities. Single parent fathers, in particular, may have problems managing these demands and responsibilities.

### **Recommendations for Commanders and Supervisors**

*Draw on local resources to strengthen and educate unit families.* A growing number of agencies and organizations, both on and off post, are developing competence in addressing the needs of families. These agencies should be reviewed, their capabilities understood and their resources accessed in order to support families. Encouraging these connections early can strengthen families before they develop problems and help to maintain unit morale, soldier commitments, and high levels of performance.

*Addresses the special needs of young soldiers with young children.* These families, whatever their pattern, are the most vulnerable to personal and relational distress. Their needs for support may not be readily apparent and, since many of them are living off post, the spouses and children may not be as involved in unit family events or activities. Reaching out to them before they have serious problems may prevent problems from becoming irreconcilable.

*Recognize the potential for stress among single parents in the unit.* While it is important to be fair and equitable to all soldiers in the unit, single parents may be somewhat more vulnerable to stress than soldiers in other family pattern types. They have no adult backup in the home, and they may be less connected to other family support networks. Most vulnerable are single parent males who may be not only less visible than female single parents, but also less willing to express their needs as openly to leaders and supervisors.

*Provide advance information to families on unit-related demands and work responsibilities.* Family stress is often related to lack of predictability or preparation for changes. With the majority of spouses now employed or seeking employment and family obligations increasingly complicated, preparing soldiers and their families for unusual obligations is increasingly critical to family adaptation and adjustment. It is no longer appropriate to assume that Army families include unemployed civilian spouses who are at home taking care of everything with the resources needed to make

it on their own. Families increasingly need support, and unit leaders must be sensitive to their needs.

### **Recommendations for Manpower Personnel**

*Monitor family patterns carefully in order to track their changes in composition within the force.* While it is recognized that Army leaders have given significantly more attention to monitoring personnel and family patterns over the last decade, the data in this report indicate that more fine tracking is required in order to clearly understand what is happening to Army families and their needs. It is particularly important to monitor family patterns separately by gender of the soldier since there are significant differences in civilian wife and civilian husband marriages and in single parent male and female families. It is also important to monitor family patterns by rank/pay grade of the soldiers since the distribution of these families may vary according to rank/pay grade.

*Assess programs and policies for soldiers for their impact across family life patterns.* Family patterns have become increasingly complex over the last several years. This was quite evident during the recent deployments to Desert Shield/Storm. Family policies should be carefully reviewed for their potential differential impact on soldiers in each of the four family patterns reviewed. Since supportive Army policies are very important to spouses and family support is very important to soldiers (Bowen, 1989a; Bowen and Neenan, 1989), policies that are supportive to soldiers across family pattern types can help to improve family support for the soldier and the mission of the Army.

*Conduct more extensive research on the special needs of families in each family pattern.* The demographic and attitudinal information included in this report should be supplemented by intensive interviews with representative families from across the Army. The current research has only begun to address many of the questions that military service providers, policymakers and planners need to ask in order to prepare soldiers to perform at their best in support of the mission. Questions about family patterns should continue to be asked in major Army surveys. Special investigations of these relationships should also be supported. Serious consideration should be given to longitudinal studies of families in order to better understand the changes that families make over time in response to personal, family and work related circumstances. Longer term life course analyses will be critical to understanding Army family changes and to implementing more effective policies and practices to support Army families and increase family adaptation to the demands of living and serving in the armed forces.

## REFERENCES

- Antonovsky, A., & Sourani, T. (1988). Family sense of coherence and family adaptation. Journal of Marriage and the Family, 50, 79-92.
- Bowen, G.L. (1989a). The relationship of family satisfaction to satisfaction with the military way of life among soldiers (Technical Report 864). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A219 901)
- Bowen, G.L. (1989b). Family adaptation to relocation: An empirical analysis of family stressors, adaptive resources, and sense of coherence (Technical Report 856). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A212 805)
- Bowen, G.L. (1990). The family adaptation model: A life course perspective. (Technical Report 880). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A221 058)
- Bowen, G.L. (1991). Navigating the marital journey. MAP: A corporate support program for couples. New York: Praeger.
- Bowen, G.L., & Neenan, P.A. (1989). Organizational attitude toward families and satisfaction with the Military way of life: Perceptions of civilian spouses of U.S. Army members. Family Perspective, 23, 3-13.
- Bowen, G.L., & Orthner, D.K. (1986). Single parents in the U.S. Air Force, Family Relations, 35, 45-52.
- Bowen, G.L., & Orthner, D.K. (Eds.). (1989). The organization family: Work and family linkages in the U.S. military. New York: Praeger.
- Caplan, R.D. (1983). Person-environment fit: Past, present, and future. In C.L. Cooper (Ed.), Stress research. New York: Wiley.
- Janofsky, B.J. (1989). The dual-career couple: Challenges and satisfaction. In G.L. Bowen & D.K. Orthner (Eds.), The organization family: Work and family linkages in the U.S. military (pp. 97-115). New York: Praeger.
- Lazarus, R.S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer Publishing Company.
- McCubbin, M.A., & McCubbin, H.I. (1987). Family stress theory and assessment: The T-Double ABCX Model of family adjustment and adaptation. In H.I. McCubbin & A.I. Thompson (Eds.), Family assessment inventories for research and practice (pp. 1-32). Madison, WI: University of Wisconsin.

- McCubbin, H.I., & Patterson, J.M. (1983a). The family stress process: The Double ABCX Model of adjustment and adaptation. In H. McCubbin, M. Sussman, & J. Patterson (Eds.), Advances and developments in family stress theory and research (pp. 7-37). New York: Haworth Press.
- McCubbin, H.I., & Patterson, J.M. (1983b). One thousand Army families. St. Paul: University of Minnesota.
- Neenan, P.A. (1989). Marital quality and job satisfaction of male Air Force personnel: A test of the spillover hypothesis. In G.L. Bowen & D.K. Orthner (Eds.), The organization family: Work and family linkages in the U.S. military (pp. 59-76). New York: Praeger.
- Orthner, D.K. (1980). Families in Blue: A study of married and single parent families in the U.S. Air Force. Washington, DC: Department of the Air Force.
- Orthner, D.K. (1990). The family in transition. In Blankenhorn, D. & Brame, S. (eds.) Rebuilding the Nest: A New Commitment to American Families. Milwaukee, WI: Family Service America.
- Orthner, D.K., & Bowen, G.L. (1982). Families in Blue: Insights from Air Force families in the Pacific. Greensboro, NC: Family Development Press.
- Orthner, D.K., & Bowen, G.L. (1990). Family adaptation in the military (Research Report 1559). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A225 085)
- Orthner, D.K., Bowen, G.L., Zimmerman, L.I., & Short, K.A. (In preparation). Young Single Soldiers and Relationships. (Technical Report). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.
- Orthner, D.K., Zimmerman, L.I., Bowen, G.L., Gaddy, G., & Bell, D.B. (1991). Development of a measure of family adaptation to the Army (Technical Report 925). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (AD A240 842)
- Pearlin, L.I., & Schooler, C. (1978). The structure of coping. Journal of Health & Social Behavior, 19, 2-21.
- Rotter, J.B. (1966). Generalized expectations for internal versus external control of reinforcement. Psychological Monographs: General and Applied, 80, 1-28.
- Shah, B.V., LaVange, L.M., Barnwell, B.G., Killinger, J.E., & Wheelless, S.C. (1989). SUDAAN: Procedures for descriptive statistics. Research Triangle Park, NC: Research Triangle Institute.



Styles, M.B., Janofsky, B.J., Blankinship, D., & Bishop, S. (1988). Investigating family adaptation to Army life: Exploratory site visit findings (ARI Working Paper PU 88-13). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

## APPENDIX A

### Methods

#### Source of Data

The data used in this report were collected under contract with the Army Research Institute for the Behavioral and Social Sciences (ARI) as part of the Army Family Research Program (AFRP). Data specific to this report came from the 1989 Army Soldier Survey. This survey contained 449 items on Army attitudes and values; attitudes towards work, the unit, and performance; the use of Army support programs and services; retention and career plans; and personal and family relationships.

#### Sample

The multi-stage sampling technique used for this study enabled proportional representation of Army installation units and of individuals from those units. The probability samples of units and soldiers allow for unbiased estimates of soldier, spouse, and family characteristics, as well as Army unit attributes.

The AFRP sampling design included a multi-stage cluster sampling with 3 stages. The first stage consisted of a probability sampling of posts, installations and sites related to geographic regions. The second stage consisted of units within the chosen installations. The probability sample for units was based on unit function with an oversampling of deployable units. The third stage sampling was that of soldiers and spouses of soldiers. The stratification for this group was by pay grade group, sex, and marital status, with an oversampling of officers, married personnel, and females. A random sample of soldiers within the selected units completed the sample. A soldier was eligible if he/she was on active duty and assigned to an eligible unit during sample selection from February, 1989 to March, 1989 and was still assigned during data collection from February, 1989 to October, 1989. Included were soldiers in pay/grades PVT through COL who were not AWOL, hospitalized, incarcerated, or detached from their units during data collection. A total of 11,035 soldiers completed the soldier survey.

#### Subjects

The subjects for this report included 7,524 married and single parent soldiers. Warrant officers, spouses of warrant officers, and single soldiers without children were excluded from this study. Of the 7,524 soldiers, 6,563 were male and 961 were female. The civilian-wife marriages included 6,051 male soldiers and 2,728 of their wives. The civilian-husband marriages included 317 female soldiers and 95 of their husbands. The dual military marriages included 918 soldiers who were married to other military personnel at the time of the survey. The 238 single parents were never married, divorced, legally separated, or widowed soldiers with dependent children living in their households. Further demographic information about the sample is discussed in the report.

### Data Collection

The data from soldiers were collected by trained personnel on site at the installations where the soldiers were located. Group administration procedures were used in most cases to collect data. For those who could not attend group sessions, special written instructions were used, and survey instruments were returned in confidential packaging. Data collection was performed between February and December of 1989.

### Measures

A number of measured scales were used in this report. The scales have been grouped into three subsections, Stressors, Adaptive Resources, and Family Adaptation, to coincide with subheadings in the report. All scales have been recoded to reflect quartile scores of the total population to allow descriptions of the data in more workable groupings. The quartiles were coded according to full population scores in order to retain standardization between this report and other AFRP reports using these scales.

### Scales

The scales are made up of items derived from the self-administered soldier survey. The scales represented the perspectives of the soldiers. Scale values were recoded to indicate higher values as more favorable to the Army.

Three scales were included in the analysis of work stressors. Work predictability was a six-item scale ranging from 6 to 30, with a mean of 20.38, a standard deviation of 4.75 and an alpha coefficient of 0.76. The Work Stress scale consisted of three items ranging from 3 to 18, with a mean of 10.76, a standard deviation of 3.48, and an alpha coefficient of 0.68. Army - Family Interference was a scale consisting of four items ranging from 4 to 20, with a mean of 13.85, a standard deviation of 4.05 and an alpha coefficient of 0.84.

Psychological adaptive resources were measured by two scales: Self-Esteem and Locus of Control. Self-Esteem was a three-item scale ranging from 3 to 18, with a mean of 12.7, a standard deviation of 2.83, and an alpha coefficient of 0.62. The Locus of Control scale was a five item scale ranging from 5 to 25, with a mean of 17.41, a standard deviation of 3.36, and an alpha coefficient of 0.69.

Marriage and family adaptive resources were assessed in part by three scales. The Marital Separation Risk scale was made up of four items ranging from 4 to 8 with a mean of 4.7, a standard deviation of 1.14, and an alpha coefficient of 0.78. The Family Coherence and Strength scale included three items ranging from 3 to 21 with a mean of 17.53, a standard deviation of 2.97, and an alpha coefficient of 0.78. Parent-Child Satisfaction had four items, ranging from 4 to 20, with a mean of 12.82, a standard deviation of 3.77, and an alpha coefficient of 0.88.

Social and community resources were assessed by four scales: Social Support Availability, Community Support Network, Community Satisfaction, and Army Family Community. Social Support Availability was made up of six items, ranging from 6 to 18 with a mean of 13.37, a standard deviation of 3.39, and an alpha coefficient of 0.89. The Community Support Network scale consisted of six items ranging from 6 to 30, with a mean of 20.09, a standard deviation of 4.67, and an alpha coefficient of 0.74. Community Satisfaction was made up of six items, ranging from 5 to 25, with a mean of 16.82, a standard deviation of 3.39, and an alpha coefficient of 0.77. The Army-Civilian Community Comparison also was made up of six items ranging from 5 to 25, with a mean of 12.66, a standard deviation of 3.35, and an alpha coefficient of 0.79.

Four scales were used to measure Army adaptive resources. The Army Policy Support scale was made up of eight items ranging from 8 to 40, with a mean of 25.37, a standard deviation of 4.13, and an alpha coefficient of 0.79. Leader Support for Families was a three-item scale ranging from 3 to 15, with a mean of 11.08, a standard deviation of 2.30 and an alpha coefficient of 0.75. Unit Supervisor Family Support Scale consisted of four items ranging from 4 to 20, with a mean of 14.47, a standard deviation of 3.81, and an alpha coefficient of 0.87. The final scale, Unit Leader Family Support, was made up of three items ranging from 3 to 15, with a mean of 9.13, a standard deviation of 2.85, and an alpha coefficient of 0.8.

Family adaptation was assessed by a single scale. Army Family Fit was a scale consisting of three items, ranging from 3 to 15 with a mean of 10.33, a standard deviation of 2.63, and an alpha coefficient of 0.77.

## APPENDIX B

### A Note on Interpreting Sample Statistics

Table B-1 contains both standard error estimates for interpreting proportions from single sample groups of different sizes and standard error estimates of the difference between proportions involving two independent groups of given sample sizes. Both estimates assume a "worst case" scenario of maximum variability ( $p = .5$ ;  $q = .5$ ). In addition, formulas for calculating standard error estimates are adjusted for design effects from the multi-level sampling design to be more conservative (Design Effect = 1.25).

Table B-1 provides helpful guidelines for making inferences to the population from the results of the analysis. For example, if 47 percent of single parents ( $n = 238$ ) report high work demands, the standard error estimate for a sample of 250 respondent assuming maximum variability is .0283 (see Table B-1). A 95% confidence interval for the population proportion would be constructed symmetrically around the sample proportion by using the approximate critical value (2 for a 95% confidence interval) and the estimated standard error from Table B-1:  $CI_{95} = 47\% \pm (2) (.0283)$ . Thus, it can be concluded with 95 percent confidence that the true population proportion lies in the interval from approximately 41 to 53 percent.

As a further example, if 55 percent of soldiers in dual military marriages ( $n = 918$ ) report high work demands, and a confidence interval is sought around this eight percent proportional difference between single parent soldiers and soldiers in dual military marriages, according to Table B-1, it is apparent that the standard error of the difference between independent proportions from sample groups of 1000 and 250 is .0316. A 95% confidence interval for the proportional difference between the two population groups would be constructed symmetrically around the estimated proportional difference by using the approximate critical value (2 for a 95% confidence interval) and the estimated standard error of the difference from Table B-1:  $CI_{95} = 8\% \pm (2) (.0316)$ . In this example, it can be concluded with 95 percent confidence that the true difference in the proportion of single parent soldiers who report high work demands and the proportion of dual military soldiers who reported high work demands lies in the interval from approximately 2 percent to 14 percent.

Table B-1  
Standard Error Guidelines

Group 1 N Value	(SE p(1))	Group 2 N Value	(SE p(2))	SE (p(1)-p(2))	Minimal Proportional Difference
1000	0.0141	1000	0.0141	0.0200	.04
		500	0.0200	0.0245	.05
		250	0.0283	0.0316	.06
		125	0.0400	0.0424	.08
		100	0.0447	0.0469	.09
		75	0.0516	0.0535	.11
		50	0.0632	0.0648	.13
		30	0.0816	0.0829	.17
		500	0.0200	0.0283	.06
		250	0.0283	0.0346	.07
		125	0.0400	0.0447	.09
		100	0.0447	0.0490	.10
		75	0.0516	0.0554	.11
		50	0.0632	0.0663	.13
		30	0.0816	0.0841	.17
500	0.0200	250	0.0283	0.0400	.08
		125	0.0400	0.0490	.10
		100	0.0447	0.0529	.11
		75	0.0516	0.0589	.12
		50	0.0632	0.0693	.14
		30	0.0816	0.0864	.17
		125	0.0400	0.0566	.11
		100	0.0447	0.0600	.12
250	0.0283	75	0.0516	0.0653	.13
		50	0.0632	0.0748	.15
		30	0.0816	0.0909	.18
		100	0.0447	0.0632	.13
		75	0.0516	0.0683	.14
		50	0.0632	0.0775	.16
		30	0.0816	0.0931	.19
		75	0.0516	0.0730	.15
125	0.0400	50	0.0632	0.0816	.16
		30	0.0816	0.0966	.19
		50	0.0632	0.0894	.18
		30	0.0816	0.1033	.21
100	0.0447	75	0.0516	0.0730	.15
		50	0.0632	0.0816	.16
		30	0.0816	0.0966	.19
		75	0.0516	0.0730	.15
75	0.0516	50	0.0632	0.0816	.16
		30	0.0816	0.0966	.19
		50	0.0632	0.0894	.18
		30	0.0816	0.1033	.21
50	0.0632	75	0.0516	0.0730	.15
		50	0.0632	0.0816	.16
		30	0.0816	0.0966	.19
		75	0.0516	0.0730	.15
30	0.0816	50	0.0632	0.0816	.16
		30	0.0816	0.0966	.19
		75	0.0516	0.0730	.15
		50	0.0632	0.0816	.16

To determine if a difference of 8 percent is different enough to reject the null hypothesis that the difference between the proportion estimates from the two populations is equal to zero, it is necessary to compute a test statistic,  $z$ . The test statistic is calculated by computing the difference between the two proportions and dividing the result (.08) by the estimated standard error of the difference (.0316). Since the calculated value of the test

statistic ( $z = 2.53$ ) exceeds the critical value ( $Z_{cv} = 1.96$ ), it is concluded that there is a significant difference in the proportion of single parent soldiers and dual military soldiers who report high work demands.

As a general rule, proportional differences between groups of less than 10 percent are interpreted cautiously. The reader should consult Table B-1 for the minimal proportional difference between two sample groups of given sizes to reject the null hypothesis that the difference between the two proportions is zero. It should be remembered that the figures in Table B-1 reflect a "worst case" scenario; some flexibility in interpretation is warranted.